

CHIGNIK MANAGEMENT AREA
ANNUAL FINFISH MANAGEMENT REPORT

1991

By

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TABLE OF CONTENTS

| | <u>Page</u> |
|--|-------------|
| LIST OF TABLES | i |
| LIST OF FIGURES | v |
| LIST OF APPENDICES | vi |
| CHIGNIK SALMON FISHERIES | 1 |
| Introduction | 1 |
| Overview of the 1991 Salmon Season | 1 |
| Chinook Salmon | 2 |
| Background | 2 |
| 1991 Management | 2 |
| Sockeye Salmon | 3 |
| Background | 3 |
| 1991 Management | 4 |
| Pink and Chum Salmon | 9 |
| Background | 9 |
| 1991 Management | 9 |
| Coho Salmon | 11 |
| Background | 11 |
| 1991 Management | 11 |
| Subsistence | 11 |
| 1992 Season Outlook | 12 |
| CHIGNIK HERRING FISHERIES | 12 |
| Background | 12 |
| 1991 Management | 12 |
| LITERATURE CITED | 13 |
| APPENDICES | 110 |

LIST OF TABLES

| <u>Table</u> | <u>Page</u> |
|---|-------------|
| 1. List of active permit holders in the Chignik Management Area, 1991 | 14 |
| 2. Commercial fishing effort in the Chignik Management Areas by units of seine gear, and residentiary status, 1966-1991 | 17 |
| 3. Chignik Management Area commercial salmon catch by district, statistical area, and species, 1991 | 18 |
| 4. Chignik Management Area commercial salmon catch and effort by day, 1991 . . . | 19 |
| 5. Chignik Management Area commercial salmon catch and effort by statistical area and day, 1991 | 21 |
| 6. List of processors in the Chignik Management Area, 1991 | 29 |
| 7. Chignik Management Area historical salmon catches, 1960-1991 | 30 |
| 8. Economic value of salmon, and average income per commercial salmon permit holder, in dollars, in the Chignik Management Area, 1970-1991 | 31 |
| 9. Chignik Management Area salmon escapements by district and statistical area, 1991 | 32 |
| 10. Chignik River chinook salmon runs, 1960-1991 | 33 |
| 11. Chignik weir chinook salmon escapement estimates by day, 1991 | 34 |
| 12. Daily sockeye salmon escapement counts at the Chignik weir site, 1991 | 35 |
| 13. Daily sockeye salmon escapement counts at the Black River weir site, 1991 . . . | 36 |
| 14. Chignik Lake and Black Lake sockeye salmon escapements through the Chignik River weir using daily percentages derived from the in-season ATOE curve, 1991 | 37 |
| 15. Age composition of sockeye scale samples collected from the Black Lake and Black River, 1991 | 39 |
| 16. Sockeye salmon age composition from scale samples collected from the Chignik Lagoon commercial fishery, 1991 | 40 |

LIST OF TABLES (cont.)

| <u>Table</u> | <u>Page</u> |
|---|-------------|
| 17. Harvest of Chignik bound sockeye salmon in the Chignik, Cape Igvak, and Southeast District Mainland Areas from 1964 - 1991 | 41 |
| 18. Sockeye harvests in the Chignik Area and 80 percent of the harvest in the Cape Igvak and Southeast District Mainland Areas, 1964-1991 | 43 |
| 19. Estimated stock composition of age-1.3 Chignik sockeye salmon from commercial catch samples, based on scale pattern analysis, 1991 | 44 |
| 20. Estimated stock composition of age-2.3 Chignik sockeye salmon from commercial catch samples, based on scale pattern analysis, 1991 | 45 |
| 21. Daily sockeye salmon escapement, catch by area, and total run adjusted to Chignik Lagoon date, 1991 | 46 |
| 22. Daily and cumulative sockeye salmon catch and escapement, as determined by scale pattern analysis for the Black Lake stock, 1991 | 49 |
| 23. Daily and cumulative sockeye salmon catch and escapement, as determined by scale pattern analysis for the Chignik Lake stock, 1991 | 51 |
| 24. Black Lake weekly sockeye salmon escapement, by age class, estimated by scale pattern analysis, 1991 | 54 |
| 25. Black Lake weekly sockeye salmon catch, by age class, estimated by scale pattern analysis, 1991 | 55 |
| 26. Chignik Lake weekly sockeye salmon escapement, by age class, estimated by scale pattern analysis, 1991 | 56 |
| 27. Chignik Lake weekly sockeye salmon catch, by age class, estimated by scale pattern analysis, 1991 | 58 |
| 28. Total estimated escapement, commercial catch, and run by stock and age class for the Chignik sockeye run, estimated by scale pattern analysis, 1991 | 60 |
| 29. Catch and escapement of Chignik Lakes system sockeye salmon for Black Lake, Chignik Lake, and combined total runs, 1954-1991 | 61 |
| 30. Peak aerial survey estimates of sockeye salmon in the Black Lake and Black River tributaries, 1960-1991 | 63 |

LIST OF TABLES (cont.)

| <u>Table</u> | <u>Page</u> |
|---|-------------|
| 31. Chignik Bay District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 64 |
| 32. Central District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 64 |
| 33. Eastern District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 65 |
| 34. Western District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 65 |
| 35. Perryville District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 66 |
| 36. Total Chignik Management Area pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 66 |
| 37. Chignik Bay District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 67 |
| 38. Central District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 67 |
| 39. Eastern District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 68 |
| 40. Western District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 68 |
| 41. Perryville District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 69 |
| 42. Total Chignik Management Area chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991 | 69 |
| 43. Pink salmon return per spawner in the Central and Eastern Districts, 1962-1991 | 70 |
| 44. Pink salmon return per spawner in the Western and Perryville Districts, 1962-1991 | 70 |

LIST OF TABLES (cont.)

| <u>Table</u> | <u>Page</u> |
|---|-------------|
| 45. Chum salmon return per spawner in the Central and Eastern Districts, 1962-1991 | 71 |
| 46. Chum salmon return per spawner in the Western and Perryville Districts, 1962-1991 | 71 |
| 47. Chignik Management Area pink, chum, and coho salmon stream, 1991 | 72 |
| 48. Pink and chum salmon escapement estimates for select Chignik Management Area streams, 1953-1991 (in thousands of fish) | 84 |
| 49. Subsistence harvest of salmon in the Chignik Management Area, 1976-1991 ... | 92 |

LIST OF FIGURES

| <u>Figure</u> | <u>Page</u> |
|--|-------------|
| 1. Map of the Alaska Peninsula illustrating the relative location of the Chignik Management Area, 1991 | 93 |
| 2. Map of the Chignik Management Area with the statistical fishing districts and some prominent locations identified | 94 |
| 3. Map of the Chignik Management Area illustrating major sockeye spawning areas, 1991 | 95 |
| 4. Map of the Chignik Management Area illustrating statistical areas, 1991 | 96 |
| 5. Chignik Management Area total salmon harvests, 1960-1991 | 97 |
| 6. Exvessel value of Chignik salmon harvests from 1970-1991. | 98 |
| 7. Average income per permit holder in the Chignik Management Area, 1970-1991 .. | 99 |
| 8. Chignik Management Area chinook salmon catch and escapement, 1963-91 | 100 |
| 9. Age composition of sockeye salmon sampled in the Chignik Lagoon fishery, 1991 | 101 |
| 10. Black Lake sockeye salmon run catch and escapement, 1954-1991 | 102 |
| 11. Chignik Lake sockeye salmon run catch and escapment, 1954-1991 | 103 |
| 12. Daily sockeye salmon run by stock to the Chignik Lakes system as estimated from scale pattern analysis, 1991 | 104 |
| 13. Total Chignik Lake system sockeye salmon catch and escapement, 1954-1991 .. | 105 |
| 14. Total sockeye salmon runs to Black and Chignik Lakes, 1954-1991. | 106 |
| 15. Chignik Management Area pink salmon catch and escapement, 1962-1991 | 107 |
| 16. Chignik Management Area chum salmon catch and escapement, 1962-1991 | 108 |
| 17. Chignik Management Area coho salmon catch, 1960-1990 | 109 |

LIST OF APPENDICES

| <u>Appendix</u> | <u>Page</u> |
|---|-------------|
| A. Chignik Management Area preliminary 1990 season summary and 1991 season forecast | 110 |
| B. 1991 management plan for the Chignik Management Area commercial salmon fishery | 113 |
| C.1. Total sockeye salmon return to Black Lake by brood year and age, 1915-1991 .. | 144 |
| C.2. Total sockeye salmon return to Chignik Lake by brood year and age class, 1915-1991 | 146 |
| D. Emergency Orders | 148 |
| E. Tide tables, 1991 | 195 |
| F. 1991 salmon regulations | 199 |
| G. Statistical weeks and corresponding calendar dates for 1991 | 205 |
| H. Chignik Management Area preliminary 1991 season summary and 1992 season forecast | 207 |
| I. Chignik Management Area herring sac-roë fishery management plan, 1991 | 212 |
| J. 1991 herring regulations | 223 |

CHIGNIK SALMON FISHERIES

Introduction

The Chignik Management Area (CMA) includes all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point on the Alaska Peninsula (Figures 1-2). The area includes approximately 100 salmon producing streams, the most important being the Chignik River system (Figure 3). The CMA is bordered by the Alaska Peninsula Management Area to the west and the Kodiak Management Area to the east.

The CMA is divided into five districts which are, from east to west, the Eastern, Central, Chignik Bay, Western, and Perryville Districts (Figure 4). Five species of Pacific Salmon are commercially harvested: they are chinook (*Oncorhynchus tshawytscha*), sockeye (*O. nerka*), pink (*O. gorbuscha*), chum (*O. keta*), and coho (*O. kisutch*) salmon. The Alaska Department of Fish and Game (ADF&G), Division of Commercial Fisheries, manages the CMA salmon fisheries to achieve desired escapements while allowing for an orderly harvest of the run surplus.

Purse seine is the only legal commercial gear type allowed within the CMA. During 1991, 103 limited entry salmon permits were actively fished in the area (Table 1) with 83% claiming Alaska residency (Table 2).

The 1991 Annual Management Report (AMR) adds to a series of reports dating back to 1922. The historical database was reviewed and edited in 1989 and presented in the Regional Information Report #4K90-14 (Thompson and Fox, 1990). Disparities between previously reported catch and escapement statistics and those presented since 1989 can be attributed to the editorial process and the objective of providing the most accurate information available.

Overview of the 1991 Salmon Season

Fishermen in the CMA, along with other areas, experienced a dispute over sockeye salmon prices with local shorebased processing plants. As fishermen in other management areas went on strike, the Chignik Seiners Association (CSA) boycotted local processing plants when a price agreement could not be reached. The CSA immediately formed a co-op and agreed to catch approximately 200,000 salmon per day. This amount could be processed on a daily basis by one participating shorebased processor. The fishermen also agreed to restrict seining to Chignik Lagoon.

In addition, CSA stretched two seines from bank to bank across the mouth of Chignik River, just upstream from Mensis Point (Figure 3) in Chignik Lagoon, to prevent overescapement into the Chignik and Black Lake systems. The co-op agreement and the barrier restriction were in effect from June 23 until July 4.

A preventative escapement barrier was used once before in 1989, related to the Prince William Sound oil spill activities, when a barrier seine was deployed for 24 hours across the mouth of the Chignik River. In 1991, ADF&G notified CSA that they might be subject to a citation from the United States Coast Guard for blocking a navigable waterway. No citations were issued from either entity.

The total 1991 commercial harvest in the CMA of 3.49 million salmon (Tables 3-5), processed by eleven companies (Table 6), was the third largest harvest in the past 30 years and was approximately 22% more than the 1982-91 average of 2.73 million fish (Table 7 and Figure 5). Sockeye, chum and coho salmon harvests were well above preseason forecasted values, while chinook, and pink catches were below projected levels (Appendix A).

The exvessel value of the 1991 commercial salmon harvest, based on average inseason prices, is estimated at \$12,609,213. This was only the twelfth highest value fishery since 1970, and was approximately one half the 1990 exvessel value (Table 8 and Figures 6-7).

Total salmon escapement in the CMA was estimated at 2,346,984. All sockeye and chinook salmon escapement was counted through the Chignik weir in the Chignik Bay District. Pink and chum salmon escapement was estimated by aerial surveys (Table 9).

Chinook Salmon

Background

Chinook salmon production in the CMA is limited to the Chignik River system which is the largest chinook salmon producing system on the south side of the Alaska Peninsula. Chinook salmon return to the Chignik River primarily during July and August with peak harvests, generally in July, occurring incidental to sockeye salmon catches.

Since 1960, chinook salmon runs (escapement plus harvest) have ranged from a low of 409 fish in 1961 to a high of 14,265 fish in 1990 (Table 10). The recent 10 year average run size has been 8,318 fish. Commercial catches have increased from an average of 2,131 fish (1960-1981) to 4,655 fish (1982-1991). A corresponding increase in escapement has also occurred within the past ten years.

1991 Management

The 1991 CMA chinook salmon harvest was 3,157 fish, only about one third of the previous high catch of 9,901 fish in 1990, and 1,498 fish less than the 1982-1991 average catch of 4,655 fish (Figure 8). Catch occurred from June 10 to October 3 with the peak daily harvest of 784 chinook on July 5.

The total exvessel value of the 1991 chinook salmon harvest was estimated at \$50,027, averaging \$486 per permit holder (Table 8 and Figure 6-7).

The 1991 chinook salmon escapement, based on weir counts, was 4,545 fish (Table 11). However, no adjustment has been made for chinook salmon smaller than 650 mm in length that may have been confused with sockeye salmon, fish removed by the sport fishery, fish that spawn below the counting weir, or escapement after the weir was removed on August 5.

Sockeye Salmon

Background

Economically, sockeye salmon represent the most important commercial species in the CMA. The commercial fishery targets on two runs of sockeye salmon returning to the Chignik Lake and Black Lake systems. Sockeye salmon destined for the Chignik/Black Lakes system are also intercepted outside the CMA in two historic fisheries; one to the east in the Cape Igvak Section of the Kodiak Management Area, and one to the west in the Southeastern District Mainland Section of the Alaska Peninsula Management Area.

Although most CMA sockeye salmon production originates from the Chignik Lakes system, some spawning activity does occur in the Eastern District, primarily in tributaries to the Aniakchak River which are Albert Johnson Creek and Surprise Lake. Compared to Chignik Lake stocks, these are of minor importance. Most sockeye salmon harvested in the Eastern District are intercepted enroute to spawning areas in the Chignik/Black Lakes system. Summarized data from several years of tagging from the Aniakchak Bay and Cape Kumlik areas, showed that sockeye salmon harvested in these waters are almost exclusively of Chignik Lakes origin (Lechner 1969). Consequently, the Eastern District sockeye salmon management strategies are based on the strength of the Chignik Lakes run.

Sockeye salmon returning to the Chignik Lakes system are comprised of two stocks, one returning to Black Lake (early run), and the other to Chignik Lake (late run). Sockeye salmon escapement goals for Black Lake and Chignik Lake stocks are 400,000 and 250,000 fish (Appendix B). Commercial fishing time for sockeye salmon has been regulated based on achieving threshold escapements for each run by specific dates. Monitoring escapement with respect to achieving these thresholds is complicated by an overlap of the timing of early and late runs, i.e., the transition period. This period generally occurs during the latter part of June through mid-July.

Two methods have been developed to estimate daily proportions of each run during the transition period. The first is based on tagging studies conducted from 1962-1966 (Dahlberg 1968). These studies allowed biologists to develop an average time of entry (ATOE) curve to apportion the Chignik sockeye salmon runs into early and late components. A form of this method is currently used for inseason management of the fishery. The second method is based on differential growth between juvenile salmon rearing in Black Lake and Chignik Lake (Burgner and Marshall 1974,

Conrad 1983). Sockeye salmon fry rearing in Black Lake (early run) emerge earlier and grow at a faster rate than fry rearing in Chignik Lake (late run) (Narver 1966). The disparity in growth rates between Black Lake and Chignik Lake rearing fry is reflected by their scale patterns, and when measured, provide the variables used to separate Black Lake from Chignik Lake sockeye salmon stocks. Postseason scale pattern analysis (SPA) is used in preference to inseason analysis for the final postseason stock separation estimates of fish to early or late runs.

The early run forecast is based on the historical relationship between the prior year total return of age-1.2 fish, the average length of prior year age-1.2 male fish, and the parent year escapement. These variables provide the framework for the multiple linear regression forecast model (Appendix C.1).

The Chignik Lake forecast has historically been variable in its accuracy and developing a model, such as the one used for the early run, has been unsuccessful. Late run forecast estimates are based on a simple return per spawner estimate for each age class represented in the return (Appendix C.2).

Aerial surveys have been conducted in the Chignik Lakes system almost every year since 1960, but are not used to estimate sockeye escapement.

1991 Management

The Chignik River weir, located three miles upstream from Chignik Lagoon, was operational on June 3. Weekly maintenance dives by weir personnel in scuba gear were made on the face of the weir throughout the season. Dives were necessary to repair any holes under or damage to aluminum panels in the weir. Consequently, it remained fish tight until it was removed August 5 (Table 12).

The need for accurate stock separation resulted in the placement of a weir at the outlet of Black Lake to count the early run sockeye salmon escapement in 1990 and 1991. The Black River weir was located at the confluence of the Black River and Chiaktuak Creek. The floating weir is a new design which uses rails placed along the bottom for panel attachment as opposed to a conventional tripod or pile driven weir. Installation in 1991 was complicated by high water and the necessity to stabilize eroding banks with gabions filled with sandbags. The weir became operational on June 12 (Table 13). High water continued to plague the project throughout the season, eroding the banks on either side and undermining the weir. Scuba diving proved too dangerous because of minimal visibility and high velocities during flood stages. During these flood stages, unknown numbers of sockeye salmon moved over and through the weir as evident by discrepancies in actual weir counts versus higher aerial stream survey counts in tributaries above the weir. Also, scale samples taken at the weir indicated few age-1.2 fish were present, while scale samples taken upstream at the outlet of Black Lake showed a much greater presence of age-1.2 fish. This would indicate that fish were moving past the weir undetected. Project results established that a weir was not feasible at the present site. A weir or sonar site somewhere else on Black Lake or River system would provide important information for

increasing inseason management precision. This would allow for verification of the assumptions which are used by biologists in final postseason stock separation.

The first commercial fishing period is allowed when the cumulative escapement through the weir prior to June 12 is a minimum of 40,000 fish, and there is an indication of a buildup of fish in Chignik Lagoon. Interim escapement goals have been established to facilitate achieving the 400,000 and 250,000 fish escapement goals for Black and Chignik Lakes (Appendix B).

The 1991 Chignik sockeye salmon fishery started on June 11 (Appendix D-E). The cumulative escapement through 8:00 am, June 11 was 75,573 fish (Table 12) which was above the desired goal (40,000 sockeye salmon) for this date. The hourly rate of sockeye salmon passage and a harvestable buildup in Chignik Lagoon indicated that interim escapement goals would be achieved, or exceeded, and therefore, the Eastern, Central and Chignik Bay Districts were opened to commercial salmon fishing for 24 hours from 2:30 p.m., June 11, through 2:30 p.m., June 12. Due to higher than anticipated escapements at the weir by noon on June 11, the opening was extended until further notice. Fishing continued until 9:00 p.m., June 19, when it was closed by Emergency Order (E.O.), based on a lower than expected daily entry rate of sockeye salmon into Chignik Lagoon. Escapement to date was only 147,548 sockeye salmon and it appeared that the desired escapement goal of 175,000 - 200,000 fish by June 20 was not going to be achieved (Table 14). Total sockeye salmon harvest for this period was 627,036 fish (Table 4). Fishermen were placed on a 12 hour notice for the announcement of the next opening.

By June 22, escapement had exceeded 200,000 fish (Table 12), and there was a harvestable buildup of fish in Chignik Lagoon. Therefore, an announcement was made to open commercial fishing from 1:00 p.m., June 23, until 1:00 p.m., June 24. According to regulation, the fishing period was started with a flare launched by ADF&G personnel at 1:00 p.m., June 23, in Chignik Lagoon. No effort was made to fish by any of the 103 CMA permit holders. They had decided to strike, along with other fishermen in other areas in the state, to protest the lower salmon prices offered by processing plants.

By late afternoon of the same day, CSA had formed a co-op and agreed to catch only the amount of fish that could be processed per day by participating processors who exceeded Kodiak prices by \$.05 per pound. The fleet restricted their fishing activities to Chignik Lagoon and allowed approximately ten vessels at a time to fish. Other vessels rotated in and out so everyone was able to participate. CSA was also concerned about possible detrimental effects of overescapement into the Chignik Lake systems; and by having a limited harvest and barricading the mouth of the Chignik River with seine web, it was hoped to prevent damage to future salmon runs.

The boycott lasted from June 23 until July 4. During this boycott, CSA harvested approximately 692,000 sockeye salmon, averaging approximately 58,000 sockeye salmon per day. Even with the seines in place across Chignik River, escapement through the weir for this time period was approximately 457,498 sockeye salmon averaging 35,125 fish per day.

Escapement goals to Black Lake were obtained on schedule and the fishery did not appear to adversely affect escapement. The escapement of 275,337 early run sockeye salmon, as of June

23, was within the range of the June 25 targeted escapement of 275-325,000 sockeye salmon (Table 14). Therefore, an extension of the opening until further notice was appropriate at this time.

The period of time between the last part of June and the first part of July is generally a time of transition from early run to late run fish. It is also a critical time for management biologists who must assess the catch composition to determine which sockeye salmon stock dominates; early or late run. Fishing time is either increased to harvest early run stocks or fishing time is decreased to allow time for late run strength evaluation (Appendix F). A major indication of run composition is provided by the age composition of the harvest. The early run is typically dominated by age-1.3 and age-1.2 fish, while the late run is characterized by age-2.3 and age-2.2 fish. This transition usually occurs between June 26 and July 9. Historically, it is unusual for the late run to have a very large percentage of age-1.2 fish (Conrad, 1983).

During the 1991 season, the transition point occurred approximately four days later than the normal range, on July 13, as determined by age composition data and the ATOE curve (Figure 12). Scale samples collected from Black Lake and the commercial fishery indicated a large percentage of age-1.3 fish, and specifically for the commercial fishery, a large component of age-1.3 fish were observed beyond the normal transition period (Table 15-16 and Figure 9). Age-1.2 fish averaged 9% of the total catch through July 4 with a peak on July 4 of 17.8%. Age-2.2 fish on July 15 averaged 14% of the total catch with a peak of 39.5% on August 7. Age composition data supported ADF&G's conclusion that the 1991 season's fishery was characterized by a strong first run and by a weak second run. Late run stocks became the primary management focus after July 4. The total CMA sockeye salmon harvest through July 4 was 1.32 million fish (Table 4-5).

Based on the inseason ATOE curve, late run escapement through July 7 totaled 48,366 fish (Table 14). Since the total harvest of sockeye in the CMA was more than 600,000 fish on July 7, the Cape Igvak Section and Southeastern District Mainland fisheries Targeting late run Chignik stocks, were allowed to proceed as directed by the Board of Fisheries.

Aerial surveys in Western and Perryville Districts indicated sufficient escapements into streams and minimal buildup of pink and chum salmon on beaches and in bays to warrant a fishery. These districts were opened to commercial salmon fishing effective 6:00 p.m., Wednesday, July 10 for 24 hours, closing 6:00 p.m., Friday, July 12. Interim escapement goals for the second run were being met at 50,274 sockeye salmon by July 10. Fishing in Chignik Bay, Central, and Eastern Districts remained open until further notice. Total number of sockeye salmon harvested by July 10 was 1.61 million fish.

On July 11, fishermen reported large numbers of immature salmon being caught per set (100-1,000) in the vicinity of Mitrofanina Island. The Mitrofanina Section of the Western District was closed to commercial salmon fishing effective 6:00 p.m., Thursday, July 11, until further notice.

On Saturday, July 13, due to lower than desired escapement and declining commercial harvests, the Chignik Bay, Central, and Eastern Districts were closed to commercial salmon fishing effective 5:00 p.m.. The second run escapement was at 53,079 sockeye salmon, and had only averaged 800 fish per day for the previous five days. At this rate, the interim escapement goal

of 65-75,000 sockeye salmon by July 14 would not have been reached. Commercial catches for the previous three days from Chignik Lagoon averaged 14,000 sockeye salmon, another indicator that fish were only slowly migrating into the system. As of July 14, 1.68 million sockeye salmon had been harvested.

The cumulative Chignik Lake sockeye salmon escapement through Chignik weir as of 10:00 p.m., July 26 was 188,614 fish. The second run daily escapement was 9,076 sockeye salmon. This level of escapement would be adequate to attain the August 1 escapement goal of 200,000 second run sockeye salmon. Therefore, the Central, Chignik Bay, Western, and Perryville Districts were opened to commercial salmon fishing for 48 hours from 4:00 p.m., July 28, until 4:00 p.m., July 28.

Due to lack of adequate rainfall, some bays were closed to commercial salmon fishing to protect pink and chum salmon trying to enter streams with low water levels. In the Western and Perryville Districts, all waters northwest of a line from Alexander Point to Cape Itki were closed. This area included all waters in Dorner Bay, Ivan Bay, Mitrofanina Bay, and Humpback Bay. For Kujulik Bay, all waters northwest of a line from Brandal Point to the furthest northeast point at Cape Kumliun were closed. In the Eastern District, all waters from the southernmost marker, 500 yards from the mouth of Aniakchak Lagoon, to the eastern boundary of the CMA were closed.

Due to numerous reports of small immature salmon being caught per set in the Mitrofanina Section of the Western District, the section was closed to all commercial salmon fishing until further notice effective 2:00 p.m., July 29.

The daily sockeye salmon escapement through Chignik weir as of 10:00 p.m., July 29, was 6,460 fish. This brought the cumulative second run sockeye salmon escapement to 212,087 fish. The interim escapement goal of 200,000 sockeye salmon by July 31 had been attained, so the Central, Chignik Bay, Western, and Perryville Districts remained open to commercial salmon fishing until 8:00 p.m., July 31. Total number of sockeye salmon caught by July 31 was 1.73 million fish.

The daily level of escapement through the Chignik weir continued to be more than needed to attain the interim escapement goal of 200,000. Therefore, a three day per week commercial fishery was necessary in order to harvest fish surplus to spawning requirements. The Central, Chignik Bay, Western, and Perryville Districts were opened to commercial salmon fishing on a three day per week fishing schedule effective 12:01 a.m., August 5. Increased closed waters for these districts remained the same due to continued low water conditions.

By August 8, there were more reports of large amounts of immature sockeye and pink salmon being taken in the Western and Perryville Districts. There was evidence that the local salmon market may not have taken pink salmon which could have led to wanton waste in the fishery. The Western and Perryville Districts were closed to all commercial salmon fishing effective 4:00 p.m., August 8, until further notice.

A test fishery was conducted in areas reported to have had large numbers of immature salmon. There were insignificant numbers of immature salmon caught in this test fishery. In six 20-

minute sets, only 36 immature salmon were caught for 1,933 adult salmon. The Western and Perryville Districts were re-opened for commercial salmon fishing, effective 12:01 a.m., August 12 until 12:01 a.m., August 15, along with Central and Chignik Bay Districts.

By September 9, there had been sufficient rainfall in the previous two weeks to provide adequate escapement of all species of salmon into the streams of the CMA. A three day per week fishing period in the Eastern, Central, Western, Perryville Districts, and a five day per week fishing period in the Chignik Bay District was necessary to provide catch information to evaluate coho salmon run strength and allow harvest of sockeye salmon surplus to escapement requirements. This E.O. was effective until October 31, the end of the regulatory commercial salmon fishing season for the CMA.

The Cape Igvak fishery resulted in a harvest of 324,075 Chignik bound sockeye salmon through July 25 (Table 17). This represented 13.3% of the total Chignik salmon harvest through July 25, 1.7% less than allocated by the Board of Fisheries. The total Chignik harvest figures used in determining these percentages include the overescapement of approximately 278,000 sockeye salmon counted past the weir during the CMA seiners' partial boycott (June 23 - July 4). Harvest after July 25 in the Cape Igvak area totaled 17,455 Chignik bound sockeye salmon, for a total season harvest of 341,530 fish (Table 18).

The Southeastern District Mainland fishery resulted in a harvest of 152,714 fish through July 25 (Table 17). This represented 6.3% of the total Chignik salmon harvest through July 25, 0.3% more than allocated by the Board of Fisheries. The total Chignik harvest figures used in determining these percentages again included the overescapement of 278,305 sockeye salmon counted past the weir during the CMA seiners' partial boycott (June 23 - July 4). After July 25 catches in the Southeastern District Mainland area totaled 76,217 Chignik bound sockeye salmon for a season harvest of 228,931 sockeye salmon (Table 18).

The exvessel value of the sockeye salmon harvested in the CMA was approximately \$11,002,784 (Table 8 and Figure 6). The average value per permit holder was \$106,823 (Figure 7).

Postseason analysis using SPA and linear discriminant functions (LDF) was used to assign sockeye salmon to Black Lake or Chignik Lake stocks. Scale samples for the Black Lake standard were collected from the Black Lake outlet (Table 15) and the Chignik Lake scale samples were from Chignik Lagoon commercial catches collected after July 25 (Table 16). Estimates from LDF (age-1.3 and age-2.3 fish) of the commercial catches were assigned as percent composition to Black Lake or Chignik Lake for each commercial sample (Table 19-20). Interpolation of percent composition between sample dates was calculated for catch and escapement values and adjusted to Chignik Lagoon dates (Table 21) resulting in escapement and catches for each stock by day (Table 22-23).

The Black Lake sockeye escapement, based on postseason SPA, was 657,511 fish, 64,627 spawners less than the inseason estimate generated from the ATOE curve and 257,511 more than the 400,000 fish escapement goal (Table 14 and 24 and Figure 10). The estimated Chignik Lake sockeye escapement, based on postseason SPA, was 382,587 fish, 64,627 spawners more than

the inseason estimate generated from the ATOE curve and 132,587 spawners more than the 250,000 fish late run escapement goal (Table 25 and Figure 11-12).

Major age classes (in percent) as determined by SPA contributed to the escapement and catch of the Black Lake run as follows: age-1.3 (80.0% and 79.7%); age-1.2 (6.1% and 6.1%); age-2.3 (9.8% and 10.8%); and age-2.2 (2.8% and 2.2%) (Table 24-25). Major age classes (in percent) as determined by SPA contributed to the escapement and catch of the Chignik Lake run as follows: age-2.3 (49.0% and 41.8%); age-1.3 (24.6% and 33.5%); age-1.2 (6.8% and 6.2%); and age-2.2 (16.4% and 15.1%) (Table 26-27) (Appendix G).

In summary, the 1991 sockeye salmon run for Black Lake was 2.37 million fish and for Chignik Lake was 1.13 million fish. Total escapement to both lakes was 1.04 million sockeye salmon and harvest was 2.47 million sockeye salmon for a combined total of 3.51 million fish (Table 28-29 and Figure 13-14). This was within the forecasted range of a 3.12 to 4.68 million fish return (Appendix A-B). Both the early and late run were within the forecasted ranges.

Aerial surveys have been conducted in the Chignik Lakes system almost every year since 1960, but are not used to estimate sockeye escapement (Table 30).

Pink and Chum Salmon

Background

Pink and chum salmon production in the CMA is sporadic from year to year as indicated by variable escapement and subsequent return per spawner for both species (Tables 31-46). This erratic production for pink and chum streams could be attributed to the physical morphology of the river and stream, systems which are characterized by loose substrates and steep gradients. These systems are impacted by fall, winter, and spring floods which can cause streambed scouring, resulting in high egg and fry mortality.

The CMA pink and chum salmon fisheries are managed based on inseason aerial assessment of escapement (Table 47), and catch per unit effort (CPUE) data collected during fishing periods. Several years of stream survey data are available (Table 48). Currently, all salmon processed locally are for the fresh frozen market as there are no operational canning facilities in the area. Consequently, to provide the quality required for the fresh frozen processing, the fisheries are managed to intercept migrating fish prior to or just as they reach terminal waters.

1991 Management

The 1991 projected harvest of pink and chum salmon was 1.20 million pink salmon and 90,000 chum salmon (Appendix A). The large projected return of pink salmon was based on a near record escapement in 1989. An aggressive management strategy was anticipated early in the season prior to aerial assessment of bay and stream mouth buildups.

The Eastern District was opened to commercial salmon fishing from 2:30 p.m., June 11, through 9:00 p.m., June 19, resulting in a catch of 278 pink and 353 chum salmon. A second fishing period in the Eastern District was announced for 1:00 p.m., June 23 through 5:00 p.m., July 13 (although there was no fishing from June 23 to July 4, as noted earlier). Usually, an opening in early July is used to provide an assessment of early pink and chum salmon stocks. The Eastern District was kept closed on July 15 as mandated by the Eastern District Management Plan. Catches for this period totaled 3,036 pink and 1,034 chum salmon. During this same fishing period, the Western and Perryville Districts opened for commercial salmon fishing for the first time from 6:00 p.m., July 10 through 6:00 p.m., July 12. During this period 1,775 pink and 951 chum salmon were caught.

Due to an unusually dry spring and summer, most of the major streams in the outer districts contained little or no water. A lot of the stream mouths disappeared into gravel or sand berms on the beaches, preventing any salmon from moving up into the streams. Consequently, pink and chum salmon concentrated in large numbers on those beaches and were vulnerable to commercial harvest before adequate escapement goals could be attained if a commercial fishery were undertaken. The entire Eastern District, Kujulik Bay in the Central District, and the inner bays inside a line from Cape Itki in the Western District to Alexander Point in the Perryville District were closed to all commercial salmon fishing from July 27 until September 9. Two weeks of heavy rains prior to September 9 provided adequate pink and chum salmon escapement numbers to justify a commercial fishery on a three-day per week basis until the end of the regulatory season.

The 1991 CMA pink salmon estimated escapement totaled 778,500 fish, based on the area-under-the-curve method (Johnson and Barrett 1988, Table 36 and Figure 16). The escapement in the Eastern District was weak (125,000 fish), probably due to low water levels in the streams. However, escapements in the Chignik Bay, Central, and Western Districts doubled the 1990 escapement of 12,200, 201,100 and 96,800 fish, respectively (Tables 32-34), while the escapement for the Perryville District was more than four times the 1990 escapement of 343,500 fish (Table 35). The total catch of 1.17 million was approximately 97.5% of the projected 1.20 million harvest (Table 36 and Appendix A).

The CMA chum salmon catch and escapement were 261,400 and 469,800 fish (Table 42 and Figure 15). Escapements to Central, Eastern, Western and Perryville Districts streams and rivers were 18,000, 70,400, 38,100, and 343,200 fish, respectively (Tables 39-41).

The exvessel value of the pink and chum salmon harvest was \$402,916 and \$502,860, respectively (Table 8 and Figure 6). The average value per permit holder was \$3,912 for pink salmon and \$4,882 for chum salmon (Figure 7).

Coho Salmon

Background

Coho salmon are present throughout the CMA, and the return to the Chignik lakes system are the largest, not only in the CMA, but also in the entire Westward Region.

Coho salmon first appear in the commercial fishery about mid-July and are still present when the fishery closes in October. Since 1976, coho catches have ranged from 17,429 (1976) to 370,410 (1988) fish. Recently, coho catches have appeared bimodal with peaks in July during the targeted pink and chum fisheries and again in late August and early September (Table 4). The early coho catches, occurring primarily in the Western and Perryville Districts, have lower average weights than those caught later in Chignik Lagoon (Table 5).

1991 Management

A total of 165,625 coho salmon were harvested in the CMA in 1991, 2% less than the 1982-91 average harvest of 168,050 fish (Table 3 and 7, and Figure 17). Reduced fishing time in the Western and Perryville Districts during July and early August due to low water, could account for the lower than average total. Coho catches were reported through October in the Chignik Bay District, peaking at 6,396 fish on September 13 (Table 5).

The exvessel value of the CMA coho salmon harvested was approximately \$651,000 (Table 8 and Figure 6). The average value per permit holder was \$6,317 (Figure 7).

Although coho salmon were targeted in only one aerial survey, many were observed within area streams in surveys that targeted pink and chum salmon. No estimates of Chignik area spawning coho salmon were made because budget constraints did not allow for sufficient late season surveys.

Subsistence

The CMA population centers of Chignik, Chignik Lake, Chignik Lagoon, Perryville and Ivanof Bay rely heavily on local resources for subsistence. Salmon subsistence permits are issued to people in these areas through the Kodiak ADF&G office, Chignik ADF&G office (summer months only), and Village Protection and Safety Officers. In 1991, 32% of the Chignik area subsistence permits issued were returned. Subsistence harvests are estimated by expanding results of returned permits to total number of permits issued. In 1991, the CMA harvest totaled 29 chinook, 12,649 sockeye, 373 pink, 115 chum and 14 coho salmon (Table 49).

1992 Season Outlook

The total 1992 salmon harvest projection of 4.08 million fish is 1.35 million more salmon than the 1982-91 average of 2.73 million fish (Table 7 and Appendix H). Harvest projections for chinook (5,000) and coho (200,000) salmon are close to the respective 1982-91 averages while the sockeye salmon harvest (1.64 million) is the same as the 10 year average. The pink salmon harvest projection (2.00 million fish) is about 1.25 million pink salmon more than the 10 year average.

CHIGNIK HERRING FISHERIES

Background

The earliest recorded herring fishery in the Alaska Peninsula region was in 1906. During the early herring fishery, Chignik area catches were combined with catches from North and South Peninsula areas and labeled as Southwestern Alaska catches. Annual Southwestern Alaska herring catches did not exceed 500 tons. Herring were harvested with beach seines and marketed as a salted product. The herring fishery ceased in the late 1930's and did not commence again until 1980, with the sac roe fishery.

Since 1980, the Chignik area herring sac roe fishery has been a low effort, low yield fishery. Prior to 1984, harvests were concentrated in the Big River Section of the Eastern District (Figure 3). This area was closed to commercial herring fishing in 1985 and has remained closed to protect dwindling stocks. This closure shifted effort into other areas of the CMA.

Herring spawning schools that are in small geographic areas, generally a bay or lagoon, are managed as discrete stocks. The projected annual harvest for each of these stocks is dependent on the previous year biomass estimates at an exploitation rate of 0-20% (Appendix I-J). Preseason harvest projections may differ from actual harvest levels if inseason information suggests that the spawning biomass of a discrete stock differs significantly from anticipated levels.

1991 Management

There was no commercial harvest of herring in 1991. This apparently occurred because of low abundance levels and a reluctance of processors to purchase local herring.

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Table 1. List of active permit holders in the Chignik Management Area, 1991.

| | Name | Permit No. | Residency | ADF&G No. |
|----|--------------------|------------|-----------|-----------|
| 1 | ALECK NICK | S01L56935 | J R | 54974 |
| 2 | ALEXANDER JASON | S01L59000 | W R | 21757 |
| 3 | ANDERSON AL | S01L57160 | U R | 61634 |
| 4 | ANDERSON DAVID | S01L56415 | U R | 61550 |
| 5 | ANDERSON DEAN | S01L60114 | M NR | 60913 |
| 6 | ANDERSON EUGENE | S01L60601 | G R | 31492 |
| 7 | ANDERSON GUNNAR | S01L56589 | I R | 49655 |
| 8 | ANDERSON H. | S01L57501 | K R | 53370 |
| 9 | ANDERSON GEORGE | S01L57133 | E R | 33375 |
| 10 | ANDERSON JULIUS | S01L55433 | H R | 41205 |
| 11 | ANDERSON MARVIN | S01L58425 | P R | 29063 |
| 12 | ANDERSON NEIL | S01L58578 | P NR | 1873 |
| 13 | ANDERSON RODNEY | S01L56936 | B R | 118 |
| 14 | ANDERSON RONALD | S01L58818 | F R | 57480 |
| 15 | ASTOR CRAIG | S01L59794 | I R | 41317 |
| 16 | BATTISHILL FRANK | S01L50045 | K R | 117 |
| 17 | BECK MARK | S01L55925 | M NR | 56222 |
| 18 | BECKER CARL | S01L57469 | C NR | 51091 |
| 19 | BRANDAL ALEC | S01L55170 | U R | 32586 |
| 20 | BRANDAL HENRY | S01L50032 | K R | 11013 |
| 21 | BUMPUS DONALD | S01L61910 | L NR | 59651 |
| 22 | CAMPBELL DANIEL | S01L55731 | X NR | 40262 |
| 23 | CARLSON AXEL | S01L57612 | J R | 35863 |
| 24 | CARLSON BERNARD | S01L50220 | U R | 38182 |
| 25 | CARLSON CARL | S01L56192 | Z R | 21898 |
| 26 | CARLSON DALE | S01L57473 | V R | 43370 |
| 27 | CARLSON ERIC | S01L62210 | Z R | 33957 |
| 28 | CARLSON ERNEST | S01L57125 | P R | 43775 |
| 29 | CARLSON EUGENE | S01L55520 | P R | 61606 |
| 30 | CARLSON RODERICK | S01L57704 | F R | 44149 |
| 31 | CARLSON RUDY | S01L63976 | A R | 22017 |
| 32 | CARROLL ALBERT | S01L60106 | Z NR | 38728 |
| 33 | CONSTANTINE JOHNNY | S01L57808 | I R | 15888 |
| 34 | CRONK GLEN | S01L58603 | C NR | 38635 |
| 35 | ENDRESEN ANDY | S01L60183 | F R | 17124 |
| 36 | ERICKSON CLARENCE | S01L56512 | B R | 53266 |
| 37 | GREGORIO TONY | S01L58848 | X R | 37548 |
| 38 | GRUNERT FRANK | S01L59851 | X R | 61416 |
| 39 | GRUNERT MICHAEL | S01L55935 | K R | 59482 |
| 40 | HINDERER RAEHEL | S01L57376 | O R | 10567 |
| 41 | HINDERER WALLACE | S01L57085 | S R | 41592 |
| 42 | JOHNSON PAUL | S01L56395 | S NR | 35956 |

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Table 1. (page 2 of 3)

| | Name | Permit No. | Residency | ADF&G No. |
|----|--------------------|------------|-----------|-----------|
| 43 | JONES MORRIS | S01L56405 | W NR | 39275 |
| 44 | KALMAKOFF ARTEMIE | S01L50090 | M R | 23636 |
| 45 | KALMAKOFF GUSTIA | S01L50123 | N R | 21554 |
| 46 | KALMAKOFF HARRY | S01L60115 | F R | 6923 |
| 47 | KALMAKOFF JOSEPH | S01L60614 | G R | 11017 |
| 48 | KALMAKOFF PETER | S01L58077 | F R | 9282 |
| 49 | KASHEVAROF WILLIAM | S01L57487 | N R | 54242 |
| 50 | KOPUN ALOYS | S01L57863 | I R | 45995 |
| 51 | KOSBRUK BORIS | S01L58206 | U R | 43200 |
| 52 | KOSBRUK HARRY | S01L56726 | L R | 38528 |
| 53 | KOSBRUK IGNATIUS | S01L50116 | R R | 45060 |
| 54 | KULIN STEPHEN | S01L60113 | U R | 41178 |
| 55 | LIND ELLIOT | S01L56872 | O R | 35950 |
| 56 | LIND JOHNNY | S01L50223 | W R | 38404 |
| 57 | LIND LARRY | S01L57376 | O R | 10567 |
| 58 | LIND WILLIAM | S01L57384 | C R | 111 |
| 59 | LOUNSBURY BRETT | S01L58322 | F R | 31995 |
| 60 | MCCALLUM CHARLES | S01L55399 | O NR | 29006 |
| 61 | MCKILLY GABRIEL | S01L59493 | O R | 32863 |
| 62 | MCLENAGHAN MICHAEL | SOIL55938 | M NR | 36731 |
| 63 | MINAKER HARRY | S01L56203 | U NR | 33848 |
| 64 | MOORE JEFFREY | S01L61370 | V R | 61384 |
| 65 | MUNSON HENRY | S01L59794 | I R | 41317 |
| 66 | ODOMIN NICK | S01L57696 | L R | 195 |
| 67 | OGLE LEONARD | S01L55311 | R R | 40484 |
| 68 | OLSEN KNUD | S01L56418 | W NR | 55822 |
| 69 | OLSON GARRETT | S01L58496 | R NR | 21877 |
| 70 | ORLOFF GEORGE | S01L59308 | M R | 57946 |
| 71 | PEDERSEN ALEC | S01L57695 | S R | 51282 |
| 72 | PEDERSEN ALEC | S01L64188 | M R | 58196 |
| 73 | PEDERSEN ALVIN | S01L55953 | V R | 37662 |
| 74 | PEDERSEN ARTHUR | S01L55954 | N R | 48823 |
| 75 | PEDERSEN AUGUST | S01L50039 | H R | 59642 |
| 76 | PEDERSEN AUGUST | S01L58126 | H R | 28396 |
| 77 | PEDERSEN HANS | S01L57171 | K R | 40248 |
| 78 | PEDERSEN MARIUS | S01L64187 | U R | 57465 |
| 79 | PHILLIPS ELIA | S01L50332 | L R | 42335 |
| 80 | SHANGIN ANDY | S01L58145 | K R | 39351 |
| 81 | SHANGIN CLEMENT | S01L56733 | H R | 38622 |
| 82 | SHANGIN DENNIS | S01L58178 | G R | 21899 |
| 83 | SHANGIN RUSSELL | S01L57003 | B R | 56291 |
| 84 | SIEMION MATTHEW | S01L56992 | S NR | 32361 |
| 85 | SIEMION THEODORE | S01L56322 | H NR | 20453 |

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Table 1. (page 3 of 3)

| | Name | Permit No. | Residency | ADF&G No. |
|-----|------------------|------------|-----------|--------------|
| 86 | SKONBERG BERNARD | S01L55477 | R | 33858 |
| 87 | SKONBERG CALVIN | S01L56228 | R | 34184 |
| 88 | SKONBERG DARRELL | S01L55546 | R | 33614 |
| 89 | SKONBERG GUY | S01L55361 | R | 35698 |
| 90 | SKONBERG RALPH | S01L50205 | R | 28657 |
| 91 | SKONBERG ROY | S01L58470 | R | 42210 |
| 92 | STEPANOFF ANDREW | S01L60144 | R | 194 |
| 93 | STEPANOFF OLEANA | S01L58308 | R | 7143 |
| 94 | STEPANOFF SAM | S01L50338 | R | 33778 |
| 95 | STEPANOFF WALTER | S01L57091 | R | 11045 |
| 96 | SUYDAM LOWELL | S01L56680 | R | 39962 |
| 97 | SUYDAM GLENN | S01L59615 | R | 53205 |
| 98 | TAKAK AFONIE | S01L57035 | R | 50048 |
| 99 | TEUBER PAUL | S01L60121 | NR | 55545 |
| 100 | VANWINGERDENMARK | S01L57296 | R | 58817 |
| 101 | VEERHUSEN DANIEL | S01L57662 | R | 59377 |
| 102 | YAGIE JERRY | S01L56797 | R | 36296 |
| 103 | YAGIE MARVIN | S01L57278 | R | 54909 |

Table 2. Commercial fishing effort in the Chignik Management Area by units of seine gear, and residentiary status, 1966-1991.

| Year | Units of Gear | | | | Total |
|------|---------------|---------|--------------|---------|-------|
| | Resident | Percent | Non-Resident | Percent | |
| 1966 | 65 | 89.0 | 8 | 11.0 | 73 |
| 1967 | 73 | 88.0 | 10 | 12.0 | 83 |
| 1968 | 59 | 88.1 | 8 | 11.9 | 67 |
| 1969 | 57 | 83.8 | 11 | 16.2 | 68 |
| 1970 | 57 | 82.6 | 12 | 17.4 | 69 |
| 1971 | 64 | 83.1 | 13 | 16.9 | 77 |
| 1972 | 62 | 78.5 | 17 | 21.5 | 79 |
| 1973 | 63 | 81.8 | 14 | 18.2 | 77 |
| 1974 | 79 | 84.0 | 15 | 16.0 | 94 |
| 1975 | 72 | 83.7 | 14 | 16.3 | 86 |
| 1976 | 66 | 85.7 | 11 | 14.3 | 77 |
| 1977 | 74 | 84.1 | 14 | 15.9 | 88 |
| 1978 | 82 | 86.3 | 13 | 13.7 | 95 |
| 1979 | 87 | 86.1 | 14 | 13.9 | 101 |
| 1980 | 87 | 86.1 | 14 | 13.9 | 101 |
| 1981 | 87 | 84.5 | 16 | 15.5 | 103 |
| 1982 | 89 | 84.8 | 16 | 15.2 | 105 |
| 1983 | 84 | 84.0 | 16 | 16.0 | 100 |
| 1984 | 84 | 83.2 | 17 | 16.8 | 101 |
| 1985 | 85 | 84.2 | 16 | 15.8 | 101 |
| 1986 | 87 | 87.0 | 13 | 13.0 | 100 |
| 1987 | 89 | 87.3 | 13 | 12.7 | 102 |
| 1988 | 88 | 86.3 | 14 | 13.7 | 102 |
| 1989 | 86 | 84.3 | 16 | 15.7 | 102 |
| 1990 | 85 | 84.2 | 16 | 15.8 | 101 |
| 1991 | 85 | 83.0 | 18 | 17.0 | 103 |

Table 3. Chignik Management Area commercial salmon catch by district, statistical area, and species, 1991.

| | Stat Area | Chinook | Sockeye | Coho | Pink | Chum | Total |
|-------------------|--------------|---------|-----------|---------|-----------|---------|-----------|
| Chignik Lagoon | 271-10 | 1,996 | 1,487,421 | 56,574 | 76,163 | 17,545 | 1,639,699 |
| | Total | 1,996 | 1,487,421 | 56,574 | 76,163 | 17,545 | 1,639,699 |
| Central | 272-20 | 9 | 3,091 | 2,330 | 32,391 | 6,723 | 44,544 |
| | 272-30 | 453 | 157,349 | 5,410 | 102,723 | 33,490 | 299,425 |
| | 272-40 | 6 | 2,876 | 48 | 2,408 | 604 | 5,942 |
| | 272-50 | 185 | 120,804 | 947 | 22,382 | 7,396 | 151,714 |
| | 272-62 | 122 | 31,450 | 559 | 14,063 | 3,216 | 49,410 |
| | Total | 775 | 315,570 | 9,294 | 173,967 | 51,429 | 551,035 |
| Eastern | 272-60 | 158 | 56,607 | 914 | 25,702 | 4,178 | 87,559 |
| | 272-72 | 0 | 530 | 0 | 0 | 0 | 530 |
| | 272-90 | 0 | 67 | 273 | 2,147 | 454 | 2,941 |
| | 272-92 | 2 | 322 | 0 | 0 | 57 | 381 |
| | 272-96 | 5 | 2,225 | 0 | 130 | 236 | 2,596 |
| | Total | 165 | 59,751 | 1,187 | 27,979 | 4,925 | 94,007 |
| Western | 273-70 | 18 | 692 | 1,828 | 19,270 | 3,544 | 25,352 |
| | 273-74 | 40 | 3,940 | 15,330 | 66,561 | 22,667 | 108,538 |
| | 273-80 | 16 | 1,457 | 4,756 | 18,677 | 5,264 | 30,170 |
| | 273-90 | 79 | 10,881 | 29,463 | 218,415 | 47,208 | 306,046 |
| | 273-94 | 44 | 2,796 | 5,996 | 96,341 | 19,920 | 125,097 |
| | Total | 197 | 19,766 | 57,373 | 419,264 | 98,603 | 595,203 |
| Perryville | 275-40 | 24 | 12,231 | 39,335 | 436,239 | 84,496 | 572,325 |
| | 275-50 | 0 | 926 | 1,862 | 35,636 | 4,098 | 42,522 |
| | Total | 24 | 13,157 | 41,197 | 471,875 | 88,594 | 614,847 |
| Grand Total | | 3,157 | 1,895,665 | 165,625 | 1,169,248 | 261,096 | 3,494,791 |

Table 4. Chignik Management Area commercial salmon catch and effort by day, 1991.

| Catch Dates | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|--------------------|----------------|----------|---------|--------|---------|---------|--------|--------|---------|---------|--------|---------|
| | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 06/09 ^a | 1 | 1 | 0 | 0 | 2,338 | 17,360 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06/11 | 75 | 78 | 11 | 249 | 72,241 | 529,997 | 0 | 0 | 92 | 144 | 119 | 930 |
| 06/12 | 99 | 137 | 47 | 800 | 87,812 | 630,089 | 1 | 7 | 38 | 76 | 463 | 3,331 |
| 06/13 | 92 | 97 | 27 | 598 | 52,942 | 383,137 | 0 | 0 | 71 | 140 | 258 | 1,978 |
| 06/14 | 89 | 97 | 18 | 436 | 76,883 | 555,667 | 0 | 0 | 39 | 78 | 93 | 723 |
| 06/15 | 90 | 98 | 29 | 866 | 64,244 | 462,734 | 0 | 0 | 13 | 38 | 79 | 633 |
| 06/16 | 92 | 102 | 26 | 579 | 62,979 | 446,562 | 0 | 0 | 49 | 135 | 554 | 3,960 |
| 06/17 | 87 | 92 | 19 | 346 | 62,942 | 446,721 | 0 | 0 | 9 | 18 | 663 | 4,786 |
| 06/18 | 92 | 102 | 28 | 541 | 73,105 | 508,026 | 0 | 0 | 167 | 247 | 1,138 | 8,158 |
| 06/19 | 96 | 101 | 35 | 679 | 71,550 | 494,334 | 0 | 0 | 117 | 395 | 923 | 6,592 |
| 06/23 | 25 | 26 | 0 | 0 | 42,422 | 291,626 | 0 | 0 | 0 | 0 | 1 | 7 |
| 06/24 | 34 | 35 | 18 | 381 | 54,533 | 375,010 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06/25 | 30 | 39 | 9 | 196 | 84,848 | 591,682 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06/26 | 27 | 29 | 4 | 109 | 74,254 | 513,181 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06/27 | 23 | 30 | 2 | 80 | 82,382 | 568,154 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06/28 | 19 | 28 | 14 | 239 | 91,454 | 628,956 | 0 | 0 | 0 | 0 | 12 | 83 |
| 06/29 | 21 | 22 | 18 | 420 | 46,496 | 317,879 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06/30 | 17 | 21 | 6 | 135 | 58,787 | 399,359 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07/01 | 28 | 36 | 13 | 337 | 51,466 | 347,663 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07/02 | 32 | 42 | 7 | 181 | 41,988 | 283,036 | 0 | 0 | 15 | 35 | 4 | 28 |
| 07/03 | 16 | 22 | 30 | 668 | 55,176 | 382,752 | 0 | 0 | 9 | 14 | 33 | 212 |
| 07/04 | 3 | 4 | 26 | 712 | 9,133 | 68,500 | 0 | 0 | 3 | 9 | 0 | 0 |
| 07/05 | 90 | 101 | 784 | 19,931 | 60,712 | 418,261 | 2 | 13 | 60 | 188 | 247 | 1,782 |
| 07/06 | 95 | 117 | 307 | 6,565 | 68,372 | 469,408 | 102 | 742 | 481 | 1,079 | 770 | 5,780 |
| 07/07 | 86 | 94 | 237 | 4,446 | 47,985 | 323,800 | 81 | 555 | 1,196 | 2,574 | 760 | 5,555 |
| 07/08 | 93 | 112 | 257 | 4,927 | 47,854 | 321,863 | 68 | 428 | 663 | 2,035 | 2,178 | 17,434 |
| 07/09 | 85 | 97 | 128 | 2,278 | 31,014 | 205,923 | 83 | 529 | 1,317 | 2,827 | 660 | 4,871 |
| 07/10 | 78 | 85 | 145 | 3,012 | 27,412 | 183,424 | 424 | 2,453 | 2,882 | 6,518 | 1,092 | 7,593 |
| 07/11 | 83 | 89 | 227 | 4,434 | 33,128 | 221,205 | 1,180 | 8,102 | 4,684 | 12,199 | 2,618 | 18,657 |
| 07/12 | 77 | 80 | 167 | 3,655 | 19,174 | 129,294 | 488 | 3,152 | 1,567 | 3,247 | 1,773 | 12,876 |
| 07/13 | 77 | 87 | 187 | 4,169 | 20,708 | 139,276 | 501 | 3,258 | 1,615 | 3,381 | 2,098 | 15,158 |
| 07/15 ^a | 1 | 1 | 0 | 0 | 378 | 2,573 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07/17 ^a | 1 | 1 | 0 | 0 | 1,267 | 8,355 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07/19 ^a | 1 | 1 | 3 | 37 | 2,376 | 11,025 | 0 | 0 | 5 | 12 | 10 | 80 |
| 07/22 ^a | 1 | 1 | 0 | 0 | 593 | 3,348 | 1 | 5 | 33 | 88 | 5 | 30 |
| 07/25 ^a | 1 | 1 | 0 | 0 | 1,080 | 6,845 | 0 | 0 | 85 | 256 | 0 | 0 |
| 07/28 | 71 | 72 | 8 | 133 | 6,591 | 39,605 | 1,725 | 10,214 | 16,630 | 44,689 | 3,952 | 25,681 |
| 07/29 | 87 | 100 | 46 | 743 | 13,446 | 79,547 | 9,374 | 54,388 | 92,634 | 242,975 | 21,046 | 128,195 |
| 07/30 | 77 | 81 | 52 | 597 | 11,020 | 65,812 | 6,303 | 38,269 | 81,334 | 215,747 | 15,161 | 100,451 |
| 07/31 | 78 | 85 | 29 | 487 | 10,808 | 63,879 | 9,509 | 55,837 | 122,244 | 323,717 | 20,644 | 132,516 |
| 08/05 | 90 | 98 | 30 | 457 | 12,448 | 72,374 | 10,137 | 62,593 | 193,819 | 553,476 | 32,518 | 212,679 |
| 08/06 | 89 | 97 | 18 | 313 | 9,346 | 55,163 | 8,816 | 55,852 | 172,097 | 498,577 | 32,985 | 216,143 |
| 08/07 | 56 | 58 | 15 | 298 | 5,260 | 30,259 | 3,020 | 18,749 | 64,239 | 190,048 | 14,794 | 94,380 |
| 08/08 | 46 | 49 | 7 | 157 | 5,304 | 31,276 | 576 | 3,912 | 25,963 | 80,083 | 3,595 | 23,837 |
| 08/09 | 41 | 42 | 8 | 161 | 5,489 | 30,084 | 289 | 1,835 | 13,037 | 39,602 | 2,928 | 19,400 |

-Continued-

Table 4. (page 2 of 2)

| Catch Dates | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|--------------------|----------------|----------|---------|--------|-----------|------------|---------|-----------|-----------|-----------|---------|-----------|
| | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 08/10 ^a | 1 | 1 | 0 | 0 | 74 | 449 | 41 | 248 | 2,537 | 8,881 | 592 | 4,150 |
| 08/12 | 85 | 89 | 16 | 313 | 8,759 | 49,261 | 6,265 | 39,204 | 118,668 | 370,766 | 25,674 | 160,312 |
| 08/13 | 89 | 95 | 4 | 52 | 7,149 | 40,624 | 6,053 | 39,022 | 116,436 | 345,996 | 22,896 | 144,136 |
| 08/14 | 7 | 7 | 0 | 0 | 820 | 4,852 | 153 | 1,225 | 3,512 | 8,814 | 821 | 6,060 |
| 08/15 | 53 | 61 | 4 | 58 | 6,259 | 35,342 | 4,682 | 30,493 | 41,837 | 120,539 | 10,998 | 70,843 |
| 08/16 | 9 | 9 | 0 | 0 | 493 | 3,370 | 659 | 5,671 | 0 | 0 | 0 | 0 |
| 08/17 | 4 | 4 | 0 | 0 | 291 | 1,659 | 286 | 2,369 | 0 | 0 | 0 | 0 |
| 08/18 | 14 | 14 | 0 | 0 | 2,175 | 12,306 | 1,877 | 16,246 | 0 | 0 | 0 | 0 |
| 08/19 | 80 | 82 | 7 | 150 | 8,068 | 45,679 | 11,762 | 79,660 | 37,767 | 119,357 | 15,339 | 93,753 |
| 08/20 | 74 | 74 | 6 | 122 | 6,284 | 36,777 | 6,982 | 47,582 | 20,722 | 64,956 | 9,096 | 51,449 |
| 08/21 | 61 | 64 | 11 | 202 | 5,756 | 33,710 | 9,126 | 60,772 | 15,533 | 48,594 | 6,341 | 39,932 |
| 08/22 | 49 | 50 | 5 | 75 | 5,248 | 31,167 | 6,889 | 51,898 | 10,287 | 30,520 | 4,571 | 28,471 |
| 08/26 | 40 | 40 | 7 | 138 | 5,782 | 34,063 | 3,710 | 24,613 | 1,880 | 5,840 | 450 | 2,754 |
| 08/27 | 24 | 24 | 23 | 290 | 2,718 | 15,992 | 3,770 | 26,572 | 1,654 | 4,851 | 17 | 107 |
| 08/28 | 35 | 39 | 20 | 225 | 5,822 | 34,795 | 2,271 | 17,647 | 765 | 2,372 | 97 | 605 |
| 08/29 | 37 | 37 | 0 | 0 | 4,922 | 29,698 | 1,784 | 14,317 | 367 | 1,055 | 218 | 985 |
| 09/02 | 6 | 6 | 0 | 0 | 1,465 | 9,085 | 799 | 6,675 | 7 | 20 | 0 | 0 |
| 09/03 | 16 | 16 | 0 | 0 | 2,029 | 12,332 | 1,576 | 13,463 | 10 | 24 | 5 | 33 |
| 09/04 | 16 | 17 | 0 | 0 | 1,939 | 11,581 | 1,959 | 17,244 | 1 | 2 | 7 | 46 |
| 09/05 | 15 | 15 | 2 | 55 | 2,380 | 14,205 | 1,934 | 17,403 | 2 | 5 | 11 | 68 |
| 09/09 | 36 | 36 | 0 | 0 | 3,370 | 19,767 | 5,110 | 44,696 | 0 | 0 | 8 | 33 |
| 09/10 | 36 | 36 | 7 | 120 | 3,282 | 18,699 | 3,811 | 32,213 | 0 | 0 | 5 | 45 |
| 09/11 | 32 | 32 | 0 | 0 | 4,665 | 26,817 | 5,036 | 43,270 | 0 | 0 | 3 | 17 |
| 09/12 | 27 | 27 | 0 | 0 | 5,133 | 29,580 | 5,124 | 44,537 | 0 | 0 | 0 | 0 |
| 09/13 | 20 | 20 | 0 | 0 | 3,919 | 23,106 | 7,201 | 63,041 | 0 | 0 | 0 | 0 |
| 09/16 | 11 | 11 | 0 | 0 | 513 | 3,077 | 452 | 3,858 | 0 | 0 | 0 | 0 |
| 09/17 | 24 | 24 | 0 | 0 | 1,835 | 11,112 | 1,869 | 16,520 | 0 | 0 | 0 | 0 |
| 09/18 | 10 | 10 | 0 | 0 | 1,171 | 6,917 | 821 | 7,204 | 0 | 0 | 0 | 0 |
| 09/19 | 26 | 27 | 0 | 0 | 5,398 | 31,880 | 2,928 | 25,954 | 0 | 0 | 0 | 0 |
| 09/20 | 25 | 25 | 0 | 0 | 6,511 | 38,405 | 3,703 | 31,824 | 0 | 0 | 0 | 0 |
| 09/23 | 4 | 4 | 0 | 0 | 164 | 886 | 117 | 968 | 0 | 0 | 0 | 0 |
| 09/24 | 15 | 16 | 0 | 0 | 2,203 | 12,187 | 1,034 | 8,727 | 0 | 0 | 0 | 0 |
| 09/25 | 15 | 15 | 0 | 0 | 1,845 | 10,512 | 1,092 | 9,546 | 0 | 0 | 0 | 0 |
| 09/26 | 15 | 15 | 0 | 0 | 4,685 | 26,836 | 1,038 | 8,634 | 0 | 0 | 0 | 0 |
| 09/27 | 12 | 12 | 0 | 0 | 2,497 | 13,882 | 729 | 6,150 | 0 | 0 | 0 | 0 |
| 09/30 | 5 | 5 | 0 | 0 | 489 | 2,714 | 181 | 1,574 | 0 | 0 | 0 | 0 |
| 10/01 ^b | | | 0 | 0 | 181 | 1,010 | 57 | 437 | 0 | 0 | 0 | 0 |
| 10/02 | 3 | 3 | 0 | 0 | 272 | 1,532 | 115 | 921 | 0 | 0 | 0 | 0 |
| 10/03 | 4 | 4 | 0 | 0 | 706 | 3,873 | 101 | 789 | 0 | 0 | 0 | 0 |
| Totals | 103 | 3,856 | 3,157 | 66,703 | 1,895,665 | 12,944,452 | 165,625 | 1,182,957 | 1,169,248 | 3,357,631 | 261,096 | 1,676,199 |
| Average/Fish | | | | 21.13 | | 6.83 | | 7.14 | | 2.87 | | 6.42 |

^aOnly effort was from a test fishery.^bEffort data omitted because of confidentiality concerns (<3 vessels).

Table 5. Chignik Management Area commercial salmon catch and effort by statistical area and day, 1991.

| Stat Area | Date | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|-----------|--------------------|----------------|----------|---------|--------|---------|---------|--------|--------|--------|--------|--------|--------|
| | | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 271-10 | 06/09 ^a | 1 | 1 | 0 | 0 | 2,338 | 17,360 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/11 | 62 | 65 | 6 | 125 | 64,004 | 470,386 | 0 | 0 | 0 | 0 | 10 | 80 |
| | 06/12 | 74 | 106 | 19 | 364 | 64,438 | 470,201 | 0 | 0 | 0 | 0 | 10 | 50 |
| | 06/13 | 66 | 70 | 12 | 276 | 35,746 | 261,109 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/14 | 65 | 72 | 7 | 162 | 60,390 | 440,432 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/15 | 66 | 74 | 9 | 326 | 53,575 | 387,905 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/16 | 65 | 74 | 8 | 178 | 34,871 | 249,809 | 0 | 0 | 1 | 2 | 0 | 0 |
| | 06/17 | 61 | 66 | 8 | 137 | 35,826 | 257,847 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/18 | 65 | 73 | 22 | 426 | 33,749 | 234,795 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/19 | 69 | 74 | 19 | 378 | 36,351 | 253,564 | 0 | 0 | 22 | 77 | 12 | 102 |
| | 06/23 | 25 | 26 | 0 | 0 | 42,422 | 291,626 | 0 | 0 | 0 | 0 | 1 | 7 |
| | 06/24 | 34 | 35 | 18 | 381 | 54,533 | 375,010 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/25 | 30 | 39 | 9 | 196 | 84,848 | 591,682 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/26 | 27 | 29 | 3 | 53 | 74,254 | 513,181 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/27 | 23 | 30 | 2 | 80 | 82,382 | 568,575 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/28 | 19 | 28 | 14 | 239 | 91,454 | 628,956 | 0 | 0 | 0 | 0 | 12 | 83 |
| | 06/29 | 21 | 22 | 18 | 420 | 46,496 | 317,879 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/30 | 17 | 21 | 6 | 135 | 58,787 | 399,359 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 07/01 | 28 | 36 | 13 | 337 | 51,466 | 347,663 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 07/02 | 32 | 42 | 7 | 181 | 41,988 | 283,036 | 0 | 0 | 15 | 35 | 4 | 28 |
| | 07/03 | 16 | 22 | 30 | 668 | 55,176 | 382,752 | 0 | 0 | 9 | 14 | 33 | 212 |
| | 07/04 | 3 | 4 | 26 | 712 | 9,133 | 68,500 | 0 | 0 | 3 | 9 | 0 | 0 |
| | 07/05 | 69 | 80 | 753 | 19,382 | 49,674 | 343,004 | 1 | 7 | 29 | 63 | 6 | 48 |
| | 07/06 | 64 | 83 | 173 | 4,525 | 44,561 | 312,466 | 9 | 62 | 66 | 158 | 0 | 0 |
| | 07/07 | 54 | 59 | 60 | 1,279 | 21,378 | 146,901 | 0 | 0 | 6 | 14 | 1 | 7 |
| | 07/08 | 59 | 72 | 123 | 2,805 | 22,685 | 155,025 | 10 | 55 | 45 | 102 | 36 | 162 |
| | 07/09 | 55 | 64 | 47 | 1,044 | 16,151 | 109,046 | 1 | 6 | 24 | 68 | 4 | 30 |
| | 07/10 | 45 | 48 | 85 | 1,976 | 12,836 | 84,855 | 2 | 15 | 67 | 133 | 4 | 26 |
| | 07/11 | 42 | 46 | 116 | 2,373 | 15,181 | 100,721 | 23 | 136 | 89 | 210 | 18 | 124 |
| | 07/12 | 45 | 49 | 135 | 2,654 | 14,130 | 93,605 | 28 | 167 | 232 | 595 | 82 | 574 |
| | 07/13 | 55 | 57 | 155 | 3,361 | 12,311 | 81,983 | 40 | 275 | 153 | 385 | 481 | 3,536 |
| | 07/15 ^a | 1 | 1 | 0 | 0 | 378 | 2,573 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 07/17 ^a | 1 | 1 | 0 | 0 | 1,267 | 8,355 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 07/19 ^a | 1 | 1 | 3 | 37 | 2,376 | 15,962 | 0 | 0 | 5 | 12 | 10 | 80 |
| | 07/22 ^a | 1 | 1 | 0 | 0 | 593 | 3,348 | 1 | 5 | 33 | 88 | 5 | 30 |
| | 07/25 ^a | 1 | 1 | 0 | 0 | 1,080 | 6,845 | 0 | 0 | 85 | 256 | 0 | 0 |
| | 07/28 | 47 | 47 | 3 | 81 | 5,177 | 30,925 | 99 | 609 | 1,930 | 5,560 | 139 | 1,028 |
| | 07/29 | 47 | 53 | 14 | 358 | 7,581 | 45,204 | 46 | 312 | 3,449 | 9,913 | 231 | 1,752 |
| | 07/30 | 44 | 44 | 7 | 194 | 5,350 | 31,443 | 19 | 151 | 2,387 | 6,758 | 127 | 944 |
| | 07/31 | 41 | 41 | 6 | 124 | 4,712 | 27,671 | 32 | 223 | 2,170 | 6,229 | 388 | 2,918 |
| | 08/05 | 37 | 38 | 7 | 99 | 7,146 | 40,703 | 458 | 3,064 | 10,810 | 32,267 | 1,501 | 10,485 |
| | 08/06 | 29 | 30 | 8 | 131 | 4,067 | 23,203 | 304 | 2,091 | 5,623 | 17,035 | 2,077 | 14,791 |
| | 08/07 | 18 | 20 | 1 | 16 | 2,516 | 14,286 | 123 | 828 | 2,523 | 7,849 | 496 | 3,420 |
| | 08/08 | 32 | 35 | 7 | 157 | 4,935 | 29,047 | 123 | 808 | 4,373 | 13,469 | 1,271 | 8,596 |
| | 08/09 | 35 | 36 | 7 | 136 | 5,181 | 28,232 | 78 | 505 | 4,951 | 15,266 | 1,566 | 10,327 |
| | 08/12 | 33 | 33 | 7 | 157 | 6,351 | 35,894 | 254 | 1,828 | 8,211 | 25,351 | 2,319 | 15,388 |

-Continued-

Table 5. (page 2 of 8)

| Stat Area | Date | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|--------------|--------------------|----------------|----------|---------|--------|-----------|------------|--------|---------|--------|---------|--------|---------|
| | | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 271-10 | 08/13 | 41 | 44 | 2 | 15 | 5,031 | 28,488 | 270 | 1,726 | 15,992 | 51,057 | 2,769 | 17,636 |
| | 08/14 | 6 | 6 | 0 | 0 | 774 | 4,579 | 0 | 0 | 402 | 1,039 | 87 | 557 |
| | 08/15 | 34 | 41 | 2 | 24 | 5,182 | 28,906 | 111 | 829 | 2,466 | 7,462 | 807 | 4,665 |
| | 08/16 | 9 | 9 | 0 | 0 | 493 | 3,370 | 659 | 5,671 | 0 | 0 | 0 | 0 |
| | 08/17 | 4 | 4 | 0 | 0 | 291 | 1,659 | 286 | 2,369 | 0 | 0 | 0 | 0 |
| | 08/18 | 14 | 14 | 0 | 0 | 2,175 | 12,306 | 1,877 | 16,246 | 0 | 0 | 0 | 0 |
| | 08/19 | 43 | 43 | 4 | 86 | 5,739 | 31,961 | 751 | 5,329 | 3,840 | 11,755 | 1,344 | 7,733 |
| | 08/20 | 35 | 35 | 3 | 72 | 4,210 | 24,186 | 439 | 3,224 | 2,756 | 8,387 | 845 | 4,939 |
| | 08/21 | 31 | 32 | 4 | 97 | 4,437 | 25,671 | 170 | 1,121 | 1,454 | 4,457 | 311 | 1,899 |
| | 08/22 | 27 | 28 | 0 | 0 | 4,402 | 25,993 | 546 | 4,334 | 1,171 | 3,531 | 298 | 1,807 |
| | 08/26 | 34 | 34 | 3 | 93 | 5,312 | 31,267 | 739 | 5,629 | 417 | 1,267 | 75 | 504 |
| | 08/27 | 16 | 16 | 1 | 12 | 2,117 | 12,305 | 239 | 1,955 | 101 | 325 | 17 | 107 |
| | 08/28 | 30 | 34 | 1 | 13 | 5,633 | 33,839 | 1,329 | 10,674 | 154 | 469 | 67 | 375 |
| | 08/29 | 33 | 33 | 0 | 0 | 4,447 | 26,831 | 1,630 | 13,190 | 79 | 242 | 49 | 291 |
| | 09/02 | 6 | 6 | 0 | 0 | 1,465 | 9,085 | 799 | 6,675 | 7 | 20 | 0 | 0 |
| | 09/03 | 16 | 16 | 0 | 0 | 2,029 | 12,332 | 1,576 | 13,463 | 10 | 24 | 5 | 33 |
| | 09/04 | 16 | 17 | 0 | 0 | 1,939 | 11,581 | 1,959 | 17,244 | 1 | 2 | 7 | 46 |
| | 09/05 | 15 | 15 | 2 | 55 | 2,380 | 14,205 | 1,934 | 17,403 | 2 | 5 | 11 | 68 |
| | 09/09 | 35 | 35 | 0 | 0 | 3,292 | 19,307 | 5,026 | 43,986 | 0 | 0 | 1 | 3 |
| | 09/10 | 35 | 35 | 0 | 0 | 2,982 | 17,039 | 3,714 | 31,363 | 0 | 0 | 5 | 45 |
| | 09/11 | 30 | 30 | 0 | 0 | 4,586 | 26,395 | 4,392 | 38,199 | 0 | 0 | 3 | 17 |
| | 09/12 | 26 | 26 | 0 | 0 | 4,953 | 28,510 | 5,097 | 44,307 | 0 | 0 | 0 | 0 |
| | 09/13 | 20 | 20 | 0 | 0 | 3,919 | 23,106 | 7,201 | 63,041 | 0 | 0 | 0 | 0 |
| | 09/16 | 11 | 11 | 0 | 0 | 513 | 3,077 | 452 | 3,858 | 0 | 0 | 0 | 0 |
| | 09/17 | 24 | 24 | 0 | 0 | 1,835 | 11,112 | 1,869 | 16,520 | 0 | 0 | 0 | 0 |
| | 09/18 | 9 | 9 | 0 | 0 | 854 | 5,017 | 818 | 7,174 | 0 | 0 | 0 | 0 |
| | 09/19 | 25 | 26 | 0 | 0 | 5,156 | 30,420 | 2,881 | 25,554 | 0 | 0 | 0 | 0 |
| | 09/20 | 24 | 24 | 0 | 0 | 6,389 | 37,705 | 3,695 | 31,764 | 0 | 0 | 0 | 0 |
| | 09/23 | 4 | 4 | 0 | 0 | 164 | 886 | 117 | 968 | 0 | 0 | 0 | 0 |
| | 09/24 | 15 | 16 | 0 | 0 | 2,203 | 12,187 | 1,034 | 8,727 | 0 | 0 | 0 | 0 |
| | 09/25 | 15 | 15 | 0 | 0 | 1,845 | 10,512 | 1,092 | 9,546 | 0 | 0 | 0 | 0 |
| | 09/26 | 15 | 15 | 0 | 0 | 4,685 | 26,836 | 1,038 | 8,634 | 0 | 0 | 0 | 0 |
| | 09/27 | 12 | 12 | 0 | 0 | 2,497 | 13,882 | 729 | 6,150 | 0 | 0 | 0 | 0 |
| | 09/30 ^b | 5 | 5 | 0 | 0 | 489 | 2,714 | 181 | 1,574 | 0 | 0 | 0 | 0 |
| | 10/01 ^b | 2 | 2 | 0 | 0 | 181 | 1,010 | 57 | 437 | 0 | 0 | 0 | 0 |
| | 10/02 | 3 | 3 | 0 | 0 | 272 | 1,532 | 115 | 921 | 0 | 0 | 0 | 0 |
| | 10/03 | 4 | 4 | 0 | 0 | 706 | 3,873 | 101 | 789 | 0 | 0 | 0 | 0 |
| Totals | | 98 | 2,692 | 1,996 | 47,206 | 1,487,421 | 10,196,187 | 56,574 | 481,741 | 76,163 | 231,960 | 17,545 | 115,553 |
| Average/Fish | | | | | 23.65 | | 6.85 | | 8.52 | | 3.05 | | 6.59 |
| 272-20 | 06/11 | 3 | 3 | 2 | 23 | 1,490 | 10,800 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/12 | 1 | 1 | 6 | 100 | 325 | 1,580 | 0 | 0 | 0 | 0 | 120 | 620 |
| | 07/28 | 1 | 1 | 0 | 0 | 0 | 0 | 6 | 37 | 174 | 474 | 7 | 42 |
| | 07/29 | 2 | 2 | 0 | 0 | 48 | 255 | 110 | 649 | 962 | 2,705 | 223 | 1,489 |
| | 07/31 | 2 | 2 | 0 | 0 | 190 | 1,120 | 10 | 25 | 256 | 827 | 11 | 78 |
| | 08/05 | 1 | 1 | 0 | 0 | 50 | 284 | 65 | 435 | 3,465 | 10,397 | 330 | 2,210 |
| | 08/06 | 8 | 8 | 0 | 0 | 204 | 1,206 | 579 | 3,510 | 10,723 | 31,273 | 1,605 | 10,376 |

-Continued-

Table 5. (page 3 of 8)

| Stat Area | Date | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|--------------|--------------------|----------------|----------|---------|--------|---------|---------|--------|--------|--------|--------|--------|--------|
| | | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 272-20 | 08/07 | | | 0 | 0 | 5 | 30 | 31 | 201 | 215 | 617 | 82 | 497 |
| | 08/09 | 5 | 5 | 1 | 25 | 302 | 1,812 | 205 | 1,285 | 7,668 | 23,071 | 1,280 | 8,498 |
| | 08/13 | | | 0 | 0 | 20 | 125 | 95 | 701 | 3,424 | 10,865 | 741 | 4,540 |
| | 08/15 | | | 0 | 0 | 60 | 330 | 261 | 1,670 | 2,226 | 6,741 | 420 | 2,537 |
| | 08/19 | 5 | 5 | 0 | 0 | 292 | 1,616 | 351 | 2,316 | 1,641 | 5,109 | 882 | 4,747 |
| | 08/20 | 3 | 3 | 0 | 0 | 89 | 490 | 360 | 2,625 | 1,280 | 3,910 | 799 | 3,905 |
| | 08/21 | | | 0 | 0 | 5 | 30 | 58 | 405 | 69 | 220 | 44 | 255 |
| | 08/22 | | | 0 | 0 | 11 | 80 | 199 | 1,347 | 288 | 900 | 179 | 935 |
| Totals | | 19 | 36 | 9 | 148 | 3,091 | 19,758 | 2,330 | 15,206 | 32,391 | 97,109 | 6,723 | 40,729 |
| Average/Fish | | | | | 16.44 | | 6.39 | | 6.53 | | 3.00 | | 6.06 |
| 272-30 | 06/11 | 4 | 4 | 1 | 39 | 1,580 | 11,709 | 0 | 0 | 0 | 0 | 2 | 10 |
| | 06/12 | 6 | 6 | 2 | 38 | 1,101 | 8,872 | 1 | 7 | 0 | 0 | 7 | 63 |
| | 06/13 | 6 | 6 | 3 | 51 | 2,903 | 20,798 | 0 | 0 | 1 | 1 | 15 | 118 |
| | 06/14 | 7 | 7 | 0 | 0 | 3,288 | 23,204 | 0 | 0 | 0 | 0 | 52 | 440 |
| | 06/15 | 7 | 7 | 3 | 79 | 2,092 | 14,520 | 0 | 0 | 0 | 0 | 15 | 113 |
| | 06/16 | 9 | 9 | 2 | 34 | 9,147 | 64,366 | 0 | 0 | 12 | 43 | 269 | 1,936 |
| | 06/17 | 10 | 10 | 6 | 111 | 11,636 | 81,518 | 0 | 0 | 9 | 18 | 540 | 3,878 |
| | 06/18 | 13 | 15 | 1 | 16 | 19,352 | 139,030 | 0 | 0 | 44 | 93 | 602 | 4,411 |
| | 06/19 | 10 | 10 | 4 | 52 | 15,278 | 103,728 | 0 | 0 | 0 | 0 | 487 | 3,441 |
| | 07/05 | 13 | 13 | 22 | 401 | 8,015 | 55,764 | 1 | 6 | 0 | 0 | 134 | 967 |
| | 07/06 | 22 | 23 | 89 | 1,098 | 15,028 | 98,540 | 28 | 223 | 30 | 100 | 511 | 3,697 |
| | 07/07 | 19 | 22 | 133 | 2,508 | 14,526 | 97,214 | 19 | 124 | 86 | 204 | 368 | 2,713 |
| | 07/08 | 18 | 22 | 58 | 931 | 13,215 | 89,209 | 1 | 5 | 102 | 418 | 232 | 1,966 |
| | 07/09 | 17 | 19 | 49 | 518 | 6,710 | 44,984 | 5 | 32 | 152 | 373 | 293 | 2,072 |
| | 07/10 | 15 | 15 | 13 | 285 | 5,926 | 41,162 | 39 | 167 | 416 | 1,071 | 435 | 3,084 |
| | 07/11 | 17 | 18 | 20 | 490 | 6,798 | 47,361 | 49 | 346 | 202 | 445 | 318 | 2,525 |
| | 07/12 | 14 | 18 | 15 | 236 | 4,742 | 33,032 | 33 | 205 | 189 | 434 | 677 | 4,929 |
| | 07/13 | 12 | 12 | 4 | 107 | 3,551 | 24,569 | 325 | 1,991 | 522 | 1,045 | 910 | 6,646 |
| | 07/28 | 11 | 11 | 2 | 22 | 458 | 2,884 | 167 | 1,135 | 3,668 | 10,011 | 710 | 5,259 |
| | 07/29 | 8 | 8 | 1 | 18 | 978 | 6,043 | 305 | 2,125 | 5,645 | 14,802 | 2,015 | 14,662 |
| | 07/30 | 10 | 11 | 12 | 53 | 1,629 | 10,044 | 450 | 2,921 | 9,200 | 26,920 | 3,447 | 24,335 |
| | 07/31 | 8 | 10 | 2 | 55 | 1,640 | 9,936 | 342 | 2,365 | 11,413 | 32,016 | 2,995 | 19,763 |
| | 08/05 | 9 | 10 | 1 | 30 | 1,253 | 7,820 | 661 | 4,582 | 19,513 | 59,544 | 5,182 | 35,427 |
| | 08/06 | 10 | 11 | 1 | 25 | 1,078 | 6,796 | 511 | 2,932 | 20,649 | 58,018 | 4,662 | 30,887 |
| | 08/07 | 6 | 6 | 1 | 40 | 559 | 3,318 | 194 | 1,333 | 7,283 | 23,236 | 2,197 | 14,709 |
| | 08/12 | 9 | 9 | 0 | 0 | 422 | 2,294 | 305 | 2,269 | 7,157 | 22,093 | 1,895 | 11,208 |
| | 08/13 | 4 | 4 | 1 | 20 | 297 | 1,776 | 545 | 4,116 | 7,711 | 23,461 | 1,508 | 9,988 |
| | 08/15 ^b | | | 0 | 0 | 14 | 75 | 7 | 53 | 276 | 888 | 35 | 157 |
| | 08/19 | 7 | 7 | 0 | 0 | 901 | 5,399 | 252 | 1,929 | 3,103 | 9,569 | 1,113 | 6,313 |
| | 08/20 | 11 | 11 | 0 | 0 | 1,100 | 6,628 | 431 | 3,302 | 2,860 | 8,912 | 1,148 | 6,419 |
| | 08/21 | 8 | 8 | 0 | 0 | 273 | 1,700 | 158 | 1,184 | 1,229 | 3,869 | 317 | 1,713 |
| | 08/22 | 4 | 4 | 0 | 0 | 144 | 854 | 182 | 1,309 | 1,022 | 3,106 | 247 | 1,282 |
| | 08/29 ^b | | | 0 | 0 | 458 | 2,785 | 115 | 870 | 229 | 645 | 145 | 570 |
| | 09/09 ^b | | | 0 | 0 | 78 | 460 | 84 | 710 | 0 | 0 | 7 | 30 |
| | 09/10 ^b | | | 7 | 120 | 300 | 1,660 | 97 | 850 | 0 | 0 | 0 | 0 |
| | 09/11 ^b | | | 0 | 0 | 18 | 90 | 18 | 130 | 0 | 0 | 0 | 0 |

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Table 5. (page 4 of 8)

| Stat Area | Date | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|--------------|--------------------|----------------|----------|---------|--------|---------|-----------|--------|--------|---------|---------|--------|---------|
| | | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 272-30 | 09/12 ^b | | | 0 | 0 | 180 | 1,070 | 27 | 230 | 0 | 0 | 0 | 0 |
| | 09/18 ^b | | | 0 | 0 | 317 | 1,900 | 3 | 30 | 0 | 0 | 0 | 0 |
| | 09/19 ^b | | | 0 | 0 | 242 | 1,460 | 47 | 400 | 0 | 0 | 0 | 0 |
| | 09/20 ^b | | | 0 | 0 | 122 | 700 | 8 | 60 | 0 | 0 | 0 | 0 |
| Totals | | 44 | 357 | 453 | 7,377 | 157,349 | 1,075,272 | 5,410 | 37,941 | 102,723 | 301,335 | 33,490 | 225,731 |
| Average/Fish | | | | | 16.28 | | 6.83 | | 7.01 | | 2.93 | | 6.74 |
| 272-40 | 07/08 | 5 | 5 | 6 | 131 | 2,840 | 17,521 | 0 | | | | 296 | 2,455 |
| | 08/05 | | | 0 | 0 | 36 | 180 | 48 | 320 | 2,408 | 7,080 | 308 | 2,000 |
| Totals | | 6 | 6 | 6 | 131 | 2,876 | 17,701 | 48 | 320 | 2,408 | 7,080 | 604 | 4,455 |
| Average/Fish | | | | | 21.83 | | 6.15 | | 6.67 | | 2.94 | | 7.38 |
| 272-50 | 06/11 ^b | | | 0 | 0 | 2,203 | 15,298 | 0 | 0 | 0 | 0 | 13 | 94 |
| | 06/12 | 12 | 15 | 6 | 102 | 15,744 | 105,650 | 0 | 0 | 0 | 0 | 181 | 1,580 |
| | 06/13 | 12 | 12 | 6 | 134 | 8,567 | 61,005 | 0 | 0 | 70 | 139 | 170 | 1,358 |
| | 06/14 | 10 | 10 | 3 | 72 | 4,753 | 32,422 | 0 | 0 | 39 | 78 | 26 | 175 |
| | 06/15 | 7 | 7 | 4 | 118 | 4,596 | 32,209 | 0 | 0 | 0 | 0 | 35 | 274 |
| | 06/16 | 8 | 8 | 10 | 232 | 11,658 | 81,261 | 0 | 0 | 0 | 0 | 237 | 1,681 |
| | 06/17 | 7 | 7 | 1 | 33 | 8,954 | 61,670 | 0 | 0 | 0 | 0 | 107 | 783 |
| | 06/18 | 11 | 11 | 4 | 95 | 16,865 | 112,938 | 0 | 0 | 0 | 0 | 530 | 3,702 |
| | 06/19 | 10 | 10 | 3 | 67 | 13,146 | 90,100 | 0 | 0 | 86 | 302 | 377 | 2,704 |
| | 07/05 | 7 | 7 | 9 | 148 | 2,719 | 17,365 | 0 | 0 | 20 | 56 | 103 | 744 |
| | 07/06 | 9 | 9 | 42 | 887 | 7,377 | 49,332 | 61 | 436 | 254 | 494 | 247 | 1,981 |
| | 07/07 | 10 | 10 | 39 | 569 | 8,140 | 53,937 | 50 | 328 | 737 | 1,620 | 356 | 2,523 |
| | 07/08 | 7 | 7 | 38 | 509 | 4,557 | 28,705 | 51 | 321 | 420 | 1,036 | 1,471 | 11,865 |
| | 07/09 | 5 | 5 | 4 | 126 | 1,400 | 9,084 | 10 | 54 | 248 | 559 | 92 | 686 |
| | 07/10 | 3 | 3 | 0 | 0 | 1,363 | 9,114 | 13 | 72 | 677 | 1,353 | 113 | 782 |
| | 07/11 | 7 | 8 | 7 | 170 | 2,218 | 14,806 | 116 | 777 | 1,013 | 2,019 | 488 | 3,466 |
| | 07/12 | 6 | 6 | 3 | 64 | 2,616 | 17,612 | 59 | 394 | 477 | 947 | 363 | 2,694 |
| | 07/13 | 6 | 6 | 3 | 93 | 2,383 | 16,706 | 91 | 644 | 744 | 1,483 | 336 | 2,366 |
| | 07/29 | 3 | 3 | 0 | 0 | 405 | 2,693 | 125 | 810 | 2,388 | 5,971 | 570 | 4,070 |
| | 07/30 | 3 | 3 | 2 | 32 | 449 | 2,998 | 78 | 512 | 2,688 | 6,713 | 405 | 2,685 |
| | 07/31 | 4 | 4 | 0 | 0 | 500 | 3,098 | 173 | 1,211 | 1,603 | 4,808 | 348 | 2,442 |
| | 08/05 ^b | | | 1 | 20 | 191 | 1,341 | 120 | 842 | 10,918 | 32,758 | 828 | 5,796 |
| Totals | | 24 | 155 | 185 | 3,471 | 120,804 | 819,344 | 947 | 6,401 | 22,382 | 60,340 | 7,396 | 54,451 |
| Average/Fish | | | | | 18.76 | | 6.78 | | 6.76 | | 2.70 | | 7.36 |
| 262-62 | 06/11 ^b | | | 0 | 0 | 1,148 | 8,387 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/14 | 4 | 4 | 6 | 129 | 3,845 | 27,082 | 0 | 0 | 0 | 0 | 15 | 108 |
| | 06/15 | 7 | 7 | 4 | 170 | 2,471 | 17,804 | 0 | 0 | 13 | 38 | 20 | 172 |
| | 06/16 | 6 | 6 | 6 | 135 | 3,531 | 24,669 | 0 | 0 | 11 | 37 | 36 | 260 |

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Table 5. (page 5 of 8)

| Stat Area | Date | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|--------------|--------------------|----------------|----------|---------|--------|---------|---------|--------|--------|--------|--------|--------|--------|
| | | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 262-62 | 06/17 | 4 | 4 | 0 | 0 | 2,436 | 17,040 | 0 | 0 | 0 | 0 | 10 | 84 |
| | 06/18 ^b | | | 1 | 4 | 958 | 6,706 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/19 | 4 | 4 | 4 | 74 | 4,891 | 33,762 | 0 | 0 | 9 | 16 | 39 | 294 |
| | 07/08 | 3 | 3 | 11 | 185 | 2,243 | 15,191 | 3 | 12 | 25 | 56 | 9 | 60 |
| | 07/09 | 4 | 4 | 16 | 344 | 3,139 | 20,366 | 19 | 94 | 122 | 244 | 27 | 174 |
| | 07/10 | 4 | 4 | 24 | 399 | 2,950 | 19,556 | 91 | 522 | 194 | 387 | 122 | 885 |
| | 07/11 | 3 | 3 | 13 | 254 | 1,429 | 8,987 | 23 | 155 | 91 | 205 | 33 | 232 |
| | 07/12 | 3 | 3 | 7 | 105 | 1,064 | 7,078 | 22 | 108 | 0 | 0 | 19 | 150 |
| | 07/28 ^b | | | 3 | 30 | 197 | 1,100 | 26 | 160 | 262 | 770 | 33 | 355 |
| | 07/29 ^b | | | 8 | 100 | 210 | 1,200 | 8 | 47 | 750 | 2,150 | 109 | 810 |
| | 08/05 | 3 | 3 | 12 | 174 | 249 | 1,720 | 150 | 1,058 | 5,055 | 15,164 | 931 | 6,483 |
| | 08/07 ^b | | | 3 | 57 | 221 | 1,145 | 104 | 682 | 1,758 | 5,177 | 425 | 3,122 |
| | 08/12 | 3 | 3 | 4 | 85 | 321 | 1,607 | 47 | 396 | 4,053 | 13,189 | 1,048 | 6,955 |
| | 08/13 ^b | | | 0 | 0 | 147 | 727 | 66 | 452 | 1,720 | 5,388 | 340 | 2,152 |
| Totals | | 20 | 56 | 122 | 2,245 | 31,450 | 214,127 | 559 | 3,686 | 14,063 | 42,821 | 3,216 | 22,296 |
| Average/Fish | | | | | 18.40 | | 6.81 | | 6.59 | | 3.04 | | 6.93 |
| 272-60 | 06/11 ^b | | | 0 | 0 | 505 | 3,584 | 0 | 0 | 0 | 0 | 1 | 6 |
| | 06/12 | 7 | 8 | 11 | 173 | 5,290 | 37,386 | 0 | 0 | 0 | 0 | 2 | 14 |
| | 06/13 | 8 | 8 | 4 | 111 | 5,404 | 38,236 | 0 | 0 | 0 | 0 | 16 | 114 |
| | 06/14 | 4 | 4 | 2 | 73 | 4,607 | 32,527 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 06/15 ^b | | | 9 | 173 | 980 | 6,336 | 0 | 0 | 0 | 0 | 9 | 74 |
| | 06/16 | 5 | 5 | 0 | 0 | 3,772 | 26,457 | 0 | 0 | 25 | 53 | 12 | 83 |
| | 06/17 | 5 | 5 | 4 | 65 | 4,090 | 28,646 | 0 | 0 | 0 | 0 | 6 | 41 |
| | 06/18 ^b | | | 0 | 0 | 2,181 | 14,557 | 0 | 0 | 123 | 154 | 6 | 45 |
| | 06/19 | 3 | 3 | 5 | 108 | 1,884 | 13,180 | 0 | 0 | 0 | 0 | 8 | 51 |
| | 07/05 ^b | | | 0 | 0 | 304 | 2,128 | 0 | 0 | 11 | 69 | 4 | 23 |
| | 07/06 ^b | | | 3 | 55 | 1,406 | 9,070 | 4 | 21 | 131 | 327 | 12 | 102 |
| | 07/07 ^b | | | 5 | 90 | 3,941 | 25,748 | 12 | 103 | 367 | 736 | 35 | 312 |
| | 07/08 ^b | | | 21 | 366 | 2,314 | 16,212 | 3 | 35 | 71 | 423 | 134 | 926 |
| | 07/09 | 5 | 5 | 12 | 226 | 3,614 | 22,443 | 48 | 343 | 771 | 1,583 | 244 | 1,909 |
| | 07/10 | 6 | 6 | 12 | 199 | 3,332 | 22,057 | 55 | 404 | 498 | 1,016 | 194 | 1,479 |
| | 07/11 | 7 | 7 | 22 | 564 | 5,411 | 35,053 | 137 | 956 | 574 | 1,243 | 228 | 1,654 |
| | 07/12 | 6 | 6 | 23 | 503 | 2,994 | 20,756 | 138 | 875 | 465 | 986 | 137 | 945 |
| | 07/13 | 5 | 5 | 5 | 94 | 929 | 6,036 | 32 | 242 | 148 | 334 | 46 | 328 |
| | 07/28 ^b | | | 0 | 0 | 205 | 1,429 | 42 | 250 | 905 | 1,809 | 102 | 717 |
| | 07/29 | 5 | 5 | 2 | 5 | 1,267 | 8,206 | 90 | 597 | 5,351 | 15,891 | 587 | 4,007 |
| | 07/30 | 4 | 4 | 5 | 72 | 1,371 | 8,009 | 84 | 530 | 6,846 | 20,667 | 643 | 4,501 |
| | 07/31 ^b | | | 0 | 0 | 4 | 21 | 3 | 20 | 62 | 180 | 18 | 118 |
| | 08/05 | 3 | 3 | 6 | 88 | 345 | 1,780 | 136 | 866 | 5,594 | 17,752 | 958 | 6,692 |
| | 08/06 | 3 | 3 | 7 | 108 | 457 | 2,261 | 130 | 903 | 3,760 | 12,164 | 776 | 5,401 |
| Totals | | 19 | 95 | 158 | 3,073 | 56,607 | 382,118 | 914 | 6,145 | 25,702 | 75,387 | 4,178 | 29,542 |
| Average/Fish | | | | | 19.45 | | 6.75 | | 6.72 | | 2.93 | | 7.07 |

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Table 5. (page 6 of 8)

| Stat Area | Date | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|--------------|--------------------|----------------|----------|---------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| | | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 272-72 | 06/15 ^b | | | 0 | 0 | 530 | 3,960 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | | | | 0 | 0 | 530 | 3,960 | 0 | 0 | 0 | 0 | 0 | 0 |
| Average/Fish | | | | | | | 7.47 | | | | | | |
| 272-90 | 08/05 ^b | | | 0 | 0 | 67 | 370 | 273 | 1,609 | 2,147 | 5,326 | 454 | 2,946 |
| Totals | | | | 0 | 0 | 67 | 370 | 273 | 1,609 | 2,147 | 5,326 | 454 | 2,946 |
| Average/Fish | | | | | | | 5.52 | | 5.89 | | 2.48 | | 6.49 |
| 272-92 | 06/13 ^b | | | 2 | 26 | 322 | 1,989 | 0 | 0 | 0 | 0 | 57 | 388 |
| Totals | | | | 2 | 26 | 322 | 1,989 | 0 | 0 | 0 | 0 | 57 | 388 |
| Average/Fish | | | | | 13.00 | | 6.18 | | | | | | 6.81 |
| 272-96 | 06/11 ^b | | | 2 | 62 | 1,311 | 9,833 | 0 | 0 | 92 | 144 | 93 | 740 |
| | 06/12 ^b | | | 3 | 23 | 914 | 6,400 | 0 | 0 | 38 | 76 | 143 | 1,004 |
| Totals | | | | 5 | 85 | 2,225 | 16,233 | 0 | 0 | 130 | 220 | 236 | 1,744 |
| Average/Fish | | | | | 17.00 | | 7.30 | | | | 1.69 | | 7.39 |
| 273-70 | 07/28 ^b | | | 0 | 0 | 166 | 996 | 161 | 899 | 1,456 | 4,078 | 395 | 2,046 |
| | 07/29 ^b | | | 0 | 0 | 49 | 329 | 150 | 878 | 732 | 2,637 | 292 | 1,756 |
| | 07/30 ^b | | | 8 | 83 | 203 | 1,259 | 817 | 4,911 | 4,841 | 13,573 | 1,057 | 6,508 |
| | 07/31 ^b | | | 0 | 0 | 35 | 227 | 140 | 866 | 1,202 | 3,603 | 180 | 1,108 |
| | 08/05 ^b | | | 0 | 0 | 230 | 1,188 | 410 | 2,246 | 10,982 | 30,890 | 1,620 | 11,346 |
| | 08/28 ^b | | | 10 | 132 | 9 | 45 | 150 | 1,207 | 57 | 160 | 0 | 0 |
| Totals | | | | 18 | 215 | 692 | 4,044 | 1,828 | 11,007 | 19,270 | 54,941 | 3,544 | 22,764 |
| Average/Fish | | | | | 11.94 | | 5.84 | | 6.02 | | 2.85 | | 6.42 |
| 273-74 | 07/10 | 3 | 3 | 3 | 55 | 361 | 2,340 | 120 | 640 | 184 | 477 | 42 | 260 |
| | 07/29 | 4 | 4 | 6 | 99 | 606 | 3,807 | 2,101 | 11,781 | 12,200 | 34,241 | 4,184 | 20,944 |
| | 08/12 ^b | | | 1 | 21 | 51 | 324 | 182 | 1,267 | 3,608 | 9,098 | 583 | 4,846 |
| | 08/15 ^b | | | 1 | 17 | 35 | 170 | 105 | 737 | 556 | 1,845 | 286 | 1,795 |
| | 08/20 | | | 0 | 0 | 20 | 139 | 118 | 829 | 1,154 | 3,461 | 169 | 1,185 |
| | 08/27 | 3 | 3 | 5 | 68 | 343 | 2,313 | 1,765 | 11,797 | 659 | 1,982 | 0 | 0 |

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Table 5. (page 7 of 8)

| Stat Area | Date | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|--------------|--------------------|----------------|----------|---------|--------|---------|--------|--------|---------|---------|---------|--------|---------|
| | | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 273-74 | 08/28 ^b | | | 0 | 0 | 41 | 251 | 365 | 2,556 | 316 | 948 | 0 | 0 |
| Total | | 13 | 15 | 16 | 260 | 1,457 | 9,344 | 4,756 | 29,607 | 18,677 | 52,052 | 5,264 | 29,030 |
| Average/Fish | | | | | 16.25 | | 6.41 | | 6.23 | | 5.51 | | |
| 273-80 | 07/10 ^b | | | 3 | 55 | 361 | 2,340 | 120 | 640 | 184 | 477 | 42 | 260 |
| | 07/29 | 4 | 4 | 6 | 99 | 606 | 3,807 | 2,101 | 11,781 | 12,200 | 34,241 | 4,184 | 20,944 |
| | 08/12 ^b | | | 1 | 21 | 51 | 324 | 182 | 1,267 | 3,608 | 9,098 | 583 | 4,846 |
| | 08/15 ^b | | | 1 | 17 | 35 | 170 | 105 | 737 | 556 | 1,845 | 286 | 1,795 |
| | 08/20 ^b | | | 0 | 0 | 20 | 139 | 118 | 829 | 1,154 | 3,461 | 169 | 1,185 |
| | 08/27 | 3 | 3 | 5 | 68 | 343 | 2,313 | 1,765 | 11,797 | 659 | 1,982 | 0 | 0 |
| | 08/28 ^b | | | 0 | 0 | 41 | 251 | 365 | 2,556 | 316 | 948 | 0 | 0 |
| Totals | | 13 | 15 | 16 | 260 | 1,457 | 9,344 | 4,756 | 29,607 | 18,677 | 52,052 | 5,264 | 29,030 |
| Average/Fish | | | | | | 16.25 | | 6.41 | | 6.23 | | 2.79 | 5.51 |
| 273-90 | 07/10 | 4 | 4 | 1 | 13 | 346 | 2,357 | 11 | 58 | 81 | 211 | 67 | 452 |
| | 07/11 | 5 | 5 | 3 | 42 | 1,376 | 9,319 | 84 | 440 | 345 | 964 | 107 | 702 |
| | 07/12 | 5 | 5 | 7 | 158 | 1,815 | 11,945 | 69 | 386 | 308 | 811 | 593 | 3,747 |
| | 07/28 ^b | | | 0 | 0 | 137 | 733 | 651 | 3,625 | 2,315 | 7,643 | 1,060 | 6,494 |
| | 07/29 | 6 | 6 | 2 | 36 | 410 | 2,081 | 1,582 | 9,137 | 8,019 | 23,559 | 1,986 | 12,687 |
| | 07/30 | 12 | 14 | 18 | 163 | 1,646 | 9,954 | 4,110 | 25,032 | 41,633 | 103,356 | 6,679 | 44,656 |
| | 07/31 | 12 | 12 | 7 | 112 | 511 | 3,275 | 1,579 | 9,615 | 12,471 | 32,503 | 2,367 | 15,815 |
| | 08/05 | 13 | 15 | 3 | 46 | 830 | 4,736 | 3,151 | 19,711 | 42,407 | 120,984 | 8,259 | 51,114 |
| | 08/06 | 17 | 17 | 1 | 25 | 1,062 | 6,492 | 2,208 | 15,125 | 38,408 | 114,937 | 7,463 | 50,241 |
| | 08/07 | 6 | 6 | 0 | 0 | 169 | 873 | 513 | 3,504 | 6,983 | 17,207 | 2,232 | 14,108 |
| | 08/08 | 3 | 3 | 0 | 0 | 35 | 221 | 62 | 408 | 2,123 | 6,310 | 515 | 3,339 |
| | 08/12 | 7 | 8 | 0 | 0 | 248 | 1,418 | 643 | 4,163 | 13,861 | 41,142 | 2,242 | 14,413 |
| | 08/13 | 10 | 10 | 0 | 0 | 408 | 2,417 | 1,167 | 8,242 | 20,122 | 54,939 | 3,924 | 25,604 |
| | 08/15 | 4 | 4 | 0 | 0 | 280 | 1,780 | 861 | 6,128 | 10,940 | 27,814 | 2,338 | 16,286 |
| | 08/19 | 8 | 10 | 0 | 0 | 355 | 2,039 | 1,529 | 11,404 | 6,129 | 19,355 | 2,209 | 12,945 |
| | 08/20 | 6 | 6 | 2 | 23 | 204 | 1,135 | 1,799 | 12,616 | 3,463 | 11,130 | 1,914 | 8,113 |
| | 08/21 | 5 | 5 | 0 | 0 | 206 | 1,170 | 2,328 | 16,125 | 3,807 | 12,061 | 1,640 | 9,475 |
| | 08/22 | 9 | 9 | 5 | 75 | 416 | 2,440 | 3,265 | 25,127 | 3,621 | 10,381 | 1,184 | 6,934 |
| | 08/26 ^b | | | 4 | 45 | 83 | 460 | 1,651 | 11,057 | 594 | 1,960 | 375 | 2,250 |
| | 08/27 | 3 | 3 | 17 | 210 | 127 | 617 | 1,108 | 8,458 | 488 | 1,391 | 0 | 0 |
| | 08/28 | 3 | 3 | 9 | 80 | 139 | 660 | 427 | 3,210 | 238 | 795 | 30 | 230 |
| | 08/29 ^b | | | 0 | 0 | 17 | 82 | 39 | 257 | 59 | 168 | 24 | 124 |
| | 09/11 ^b | | | 0 | 0 | 61 | 332 | 626 | 4,941 | 0 | 0 | 0 | 0 |
| Totals | | 40 | 152 | 79 | 1,028 | 10,881 | 66,536 | 29,463 | 198,769 | 218,415 | 609,621 | 47,208 | 299,729 |
| Average/Fish | | | | | 13.01 | | 6.11 | | 6.75 | | 2.79 | | 6.35 |
| 273-94 | 07/11 ^b | | | 16 | 115 | 48 | 280 | 36 | 295 | 0 | 0 | 43 | 270 |

-Continued-

Table 5. (page 8 of 8)

| Stat Area | Date | Fishing Effort | | Chinook | | Sockeye | | Coho | | Pink | | Chum | |
|--------------|--------------------|----------------|----------|---------|--------|---------|--------|--------|---------|---------|-----------|--------|---------|
| | | Permits | Landings | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| 273-94 | 07/29 ^b | | | 9 | 100 | 105 | 695 | 219 | 1,454 | 1,947 | 5,021 | 284 | 1,908 |
| | 07/31 | 3 | 3 | 11 | 150 | 183 | 990 | 454 | 2,746 | 3,110 | 9,566 | 901 | 6,400 |
| | 08/05 | 5 | 5 | 0 | 0 | 280 | 1,374 | 402 | 2,641 | 11,008 | 32,846 | 1,269 | 8,200 |
| | 08/06 | 10 | 11 | 1 | 24 | 563 | 3,217 | 1,094 | 7,059 | 14,337 | 43,517 | 3,079 | 20,297 |
| | 08/07 | 10 | 10 | 3 | 56 | 404 | 2,145 | 424 | 2,622 | 11,094 | 32,622 | 1,631 | 10,564 |
| | 08/08 | 6 | 6 | 0 | 0 | 226 | 1,352 | 362 | 2,526 | 7,350 | 20,579 | 1,453 | 9,623 |
| | 08/12 | 8 | 9 | 2 | 35 | 226 | 1,227 | 749 | 5,207 | 13,060 | 40,155 | 3,887 | 23,617 |
| | 08/13 | 12 | 12 | 0 | 0 | 254 | 1,450 | 542 | 3,826 | 15,256 | 47,338 | 2,967 | 18,007 |
| | 08/15 | 5 | 6 | 1 | 17 | 387 | 2,449 | 1,279 | 8,999 | 13,932 | 42,399 | 3,537 | 23,484 |
| | 08/19 | 4 | 4 | 1 | 26 | 98 | 518 | 381 | 2,809 | 5,098 | 16,422 | 826 | 5,001 |
| | 08/20 ^b | | | 0 | 0 | 2 | 15 | 19 | 146 | 49 | 150 | 23 | 150 |
| | 08/21 ^b | | | 0 | 0 | 20 | 104 | 35 | 284 | 100 | 306 | 20 | 142 |
| Totals | | 29 | 71 | 44 | 523 | 2,796 | 15,816 | 5,996 | 40,614 | 96,341 | 290,921 | 19,920 | 127,663 |
| Average/Fish | | | | | 11.89 | | 5.66 | | 6.77 | | 3.02 | | 6.41 |
| 275-40 | 07/10 ^b | | | 7 | 85 | 142 | 885 | 93 | 575 | 673 | 1,593 | 100 | 530 |
| | 07/28 ^b | | | 0 | 0 | 41 | 205 | 121 | 728 | 924 | 2,282 | 193 | 1,403 |
| | 07/29 | 7 | 8 | 1 | 10 | 828 | 5,144 | 2,387 | 13,952 | 31,741 | 73,574 | 4,654 | 30,577 |
| | 07/30 ^b | | | 0 | 0 | 323 | 1,776 | 595 | 3,334 | 13,007 | 35,119 | 2,511 | 15,066 |
| | 07/31 | 5 | 10 | 3 | 46 | 2,846 | 16,524 | 6,396 | 36,485 | 84,883 | 218,003 | 13,105 | 81,492 |
| | 08/05 | 17 | 18 | 0 | 0 | 1,771 | 10,878 | 4,263 | 25,219 | 69,512 | 188,468 | 10,878 | 69,980 |
| | 08/06 | 11 | 11 | 0 | 0 | 1,196 | 7,343 | 2,733 | 16,247 | 48,517 | 145,828 | 9,809 | 60,414 |
| | 08/07 | 13 | 13 | 7 | 129 | 1,386 | 8,462 | 1,631 | 9,579 | 34,383 | 103,340 | 7,731 | 47,960 |
| | 08/08 | 5 | 5 | 0 | 0 | 108 | 656 | 29 | 170 | 12,117 | 39,725 | 356 | 2,279 |
| | 08/09 ^b | | | 0 | 0 | 6 | 40 | 6 | 45 | 418 | 1,265 | 82 | 575 |
| | 08/10 ^b | | | 0 | 0 | 74 | 449 | 41 | 248 | 2,537 | 8,881 | 592 | 4,150 |
| | 08/12 | 15 | 16 | 0 | 0 | 995 | 5,890 | 3,140 | 18,395 | 58,152 | 186,949 | 11,189 | 69,257 |
| | 08/13 | 15 | 17 | 1 | 17 | 854 | 4,924 | 2,824 | 16,642 | 45,417 | 132,704 | 8,755 | 55,701 |
| | 08/14 ^b | | | 0 | 0 | 46 | 273 | 153 | 1,225 | 3,110 | 7,775 | 734 | 5,503 |
| | 08/15 | 6 | 6 | 0 | 0 | 301 | 1,632 | 2,058 | 12,077 | 11,441 | 33,390 | 3,575 | 21,919 |
| | 08/19 | 7 | 7 | 2 | 38 | 430 | 2,548 | 5,635 | 35,711 | 9,163 | 30,504 | 5,173 | 31,044 |
| | 08/20 | 8 | 8 | 1 | 27 | 296 | 1,785 | 2,086 | 12,792 | 4,178 | 13,222 | 2,099 | 12,422 |
| | 08/21 | 10 | 12 | 2 | 30 | 538 | 3,170 | 4,434 | 28,045 | 5,072 | 16,186 | 2,420 | 15,399 |
| | 08/22 ^b | | | 0 | 0 | 50 | 322 | 710 | 5,563 | 994 | 2,983 | 540 | 3,454 |
| Totals | | 27 | 139 | 24 | 382 | 12,231 | 72,906 | 39,335 | 237,032 | 436,239 | 1,241,791 | 84,496 | 529,125 |
| Average/Fish | | | | | 15.92 | | 5.96 | | 6.03 | | 2.85 | | 6.26 |
| 275-50 | 07/31 ^b | | | 0 | 0 | 187 | 1,017 | 380 | 2,281 | 5,074 | 15,982 | 331 | 2,382 |
| | 08/06 ^b | | | 0 | 0 | 719 | 4,645 | 1,257 | 7,985 | 30,080 | 75,805 | 3,514 | 23,736 |
| | 08/19 ^b | | | 0 | 0 | 20 | 120 | 225 | 1,355 | 482 | 1,690 | 253 | 1,521 |
| Totals | | 8 | 8 | 0 | 0 | 926 | 5,782 | 1,862 | 11,621 | 35,636 | 93,477 | 4,098 | 27,639 |
| Average/Fish | | | | | | | 6.24 | | 6.24 | | 2.62 | | 6.74 |

^aOnly effort was from a test fishery.^bEffort data was omitted due to confidentiality concerns (<3 vessels).

Table 6. List of processors in the Chignik Management Area, 1991.

| | |
|--|--|
| F0021 Int'l Seafoods of Alaska P.O. Box 2997 Kodiak, AK. 99615 | F0800 Anpac, Inc. P.O. Box 92520 Anchorage, AK. 99509 |
| F0043 King Crab, Inc. P.O. Box C-70739 Seattle, WA. 98107 | F0932 John Cabot Co. Drawer E Seldovia, AK. 99663 |
| F0133 Icicle Seafoods, Inc. 842 Fish Dock Road Homer, AK. 99603 | F0940 Trident Seafoods Corp. P.O. Box 229 Sand Point, AK. 99661 |
| F0135 Icicle Seafoods, Inc. P.O. Box 8 Seward, AK. 99664 | F1142 Icicle Seafoods, Inc. P.O. Box 79003 Seattle, WA. 98119 |
| F0320 Western Alaska Fisheries, Inc. 1111 3rd Ave., Suite 1210 Seattle, WA. 98101 | F1155 Cook Inlet Processing P.O. Box 8163 Nikiski, AK 99635 |
| F0365 Chignik Pride Fisheries 4241 21st Ave., Suite 300 Seattle, WA. 98107 | F1231 Inlet Fish Producers P.O. Box 114 Kenai, AK 99611 |
| F0622 Aleutian Dragon Fisheries 5355 28th Ave. N.W. Seattle, WA. 98107 | F9409 Trident Seafoods Corp. 5303 Shilshole Ave. N.W. Seattle, WA 98107 |

Table 7. Chignik Management Area historical salmon catches, 1960-1991^a.

| Number of Fish | | | | | | |
|----------------|---------|-----------|---------|-----------|---------|-----------|
| YEAR | CHINOOK | SOCKEYE | COHO | PINK | CHUM | TOTAL |
| 1960 | 643 | 715,969 | 8,933 | 557,327 | 486,699 | 1,769,571 |
| 1961 | 409 | 322,890 | 3,088 | 443,510 | 178,760 | 948,657 |
| 1962 | 435 | 364,753 | 1,292 | 1,519,305 | 364,335 | 2,250,120 |
| 1963 | 1,744 | 408,606 | 9,933 | 1,662,363 | 112,697 | 2,195,343 |
| 1964 | 1,099 | 556,890 | 2,735 | 1,682,365 | 333,336 | 2,576,425 |
| 1965 | 1,592 | 599,553 | 9,602 | 1,118,158 | 120,589 | 1,849,494 |
| 1966 | 636 | 219,794 | 16,050 | 683,215 | 238,883 | 1,158,578 |
| 1967 | 882 | 462,000 | 13,150 | 108,981 | 75,543 | 660,556 |
| 1968 | 674 | 977,382 | 2,200 | 1,290,660 | 223,861 | 2,494,777 |
| 1969 | 3,448 | 394,135 | 18,103 | 1,779,736 | 67,721 | 2,263,143 |
| 1970 | 1,225 | 1,325,883 | 15,348 | 1,287,605 | 464,674 | 3,094,735 |
| 1971 | 2,010 | 1,016,136 | 14,557 | 612,290 | 353,952 | 1,998,945 |
| 1972 | 464 | 378,669 | 19,615 | 72,240 | 78,356 | 549,344 |
| 1973 | 525 | 870,352 | 22,322 | 25,445 | 8,701 | 927,345 |
| 1974 | 255 | 662,905 | 12,245 | 70,017 | 34,454 | 779,876 |
| 1975 | 549 | 399,593 | 53,283 | 66,165 | 25,161 | 544,751 |
| 1976 | 763 | 1,163,728 | 35,301 | 388,917 | 80,221 | 1,668,930 |
| 1977 | 711 | 1,972,207 | 17,429 | 604,824 | 110,452 | 2,705,623 |
| 1978 | 1,603 | 1,576,283 | 20,212 | 985,114 | 120,889 | 2,704,101 |
| 1979 | 1,266 | 1,049,497 | 93,146 | 2,056,999 | 188,169 | 3,389,077 |
| 1980 | 2,325 | 859,966 | 117,862 | 1,125,465 | 312,572 | 2,418,190 |
| 1981 | 2,694 | 1,839,469 | 78,805 | 1,162,613 | 580,332 | 3,663,913 |
| 1982 | 5,236 | 1,521,857 | 300,384 | 873,390 | 390,096 | 3,090,963 |
| 1983 | 5,488 | 1,824,175 | 61,915 | 321,160 | 159,362 | 2,372,100 |
| 1984 | 4,318 | 2,660,478 | 110,128 | 446,184 | 63,408 | 3,284,516 |
| 1985 | 1,919 | 922,151 | 206,624 | 174,966 | 26,146 | 1,331,806 |
| 1986 | 3,037 | 1,645,834 | 116,633 | 647,125 | 176,640 | 2,589,269 |
| 1987 | 2,651 | 1,898,838 | 150,414 | 246,775 | 127,261 | 2,425,939 |
| 1988 | 7,296 | 795,841 | 370,410 | 2,997,159 | 267,126 | 4,437,832 |
| 1989 | 3,542 | 1,159,287 | 68,233 | 27,712 | 1,624 | 1,260,398 |
| 1990 | 9,901 | 2,093,650 | 130,131 | 550,008 | 270,004 | 3,053,694 |
| 1991 | 3,157 | 1,895,665 | 165,625 | 1,169,248 | 261,096 | 3,494,791 |
| Averages | | | | | | |
| (1960-91) | 2,266 | 1,079,826 | 70,803 | 836,158 | 196,973 | 2,186,025 |
| (1982-91) | 4,655 | 1,641,778 | 168,050 | 745,373 | 174,276 | 2,734,131 |

^aDoes not include Cape Igvak or Southeast Mainland catches.

Table 8. Economic value of salmon and average income per commercial salmon permit holder, in dollars, in the Chignik Management Area, 1970-1991.

| Year | Chinook | | Sockeye | | Coho | | Pink | | Chum | | Total Value |
|------|---------|---------|------------|---------|-----------|---------|-----------|---------|-----------|---------|-------------|
| | Total | Average | Total | Average | Total | Average | Total | Average | Total | Average | |
| 1970 | 6,129 | 89 | 2,190,272 | 31,743 | 18,397 | 267 | 635,673 | 9,213 | 376,025 | 5,450 | 3,226,496 |
| 1971 | 6,472 | 84 | 2,034,279 | 26,419 | 23,240 | 302 | 366,693 | 4,762 | 326,760 | 4,244 | 2,757,444 |
| 1972 | 2,028 | 28 | 825,498 | 11,308 | 35,699 | 489 | 48,401 | 663 | 87,759 | 1,202 | 99,385 |
| 1973 | 5,255 | 72 | 3,030,057 | 41,508 | 73,663 | 1,009 | 20,610 | 282 | 10,180 | 139 | 3,139,765 |
| 1974 | 2,941 | 32 | 3,618,781 | 39,767 | 31,933 | 351 | 64,069 | 704 | 51,125 | 562 | 3,768,849 |
| 1975 | 6,561 | 76 | 1,384,271 | 16,240 | 213,539 | 2,581 | 104,115 | 12,211 | 61,704 | 717 | 1,770,190 |
| 1976 | 13,800 | 179 | 4,751,000 | 61,701 | 138,000 | 1,792 | 568,300 | 7,381 | 183,600 | 2,384 | 5,654,700 |
| 1977 | 18,828 | 212 | 14,553,720 | 163,525 | 104,819 | 1,178 | 920,881 | 10,347 | 368,066 | 4,136 | 15,966,314 |
| 1978 | 56,700 | 597 | 15,653,500 | 164,774 | 116,400 | 1,225 | 1,131,500 | 11,911 | 404,500 | 4,258 | 17,362,600 |
| 1979 | 32,050 | 317 | 11,345,503 | 112,332 | 710,192 | 7,031 | 2,622,269 | 25,963 | 126,866 | 1,256 | 14,836,880 |
| 1980 | 67,657 | 670 | 5,532,290 | 54,775 | 520,655 | 5,155 | 1,477,060 | 14,624 | 1,061,963 | 10,514 | 8,659,625 |
| 1981 | 75,231 | 730 | 17,262,119 | 167,593 | 439,900 | 4,271 | 1,881,334 | 18,265 | 2,431,421 | 23,606 | 22,090,005 |
| 1982 | 75,276 | 717 | 13,038,510 | 124,176 | 1,782,027 | 16,972 | 578,184 | 5,506 | 1,356,597 | 12,920 | 16,830,594 |
| 1983 | 96,159 | 962 | 10,728,088 | 107,281 | 219,650 | 2,197 | 240,171 | 2,402 | 421,713 | 4,217 | 11,705,781 |
| 1984 | 114,502 | 1,134 | 20,402,076 | 202,000 | 759,972 | 7,525 | 330,916 | 3,276 | 146,024 | 1,446 | 21,753,490 |
| 1985 | 67,088 | 664 | 7,997,834 | 79,186 | 1,471,418 | 14,568 | 140,076 | 1,387 | 59,475 | 589 | 8,735,891 |
| 1986 | 84,800 | 848 | 16,882,290 | 168,823 | 667,740 | 6,677 | 356,147 | 3,562 | 456,546 | 4,565 | 18,447,523 |
| 1987 | 72,739 | 706 | 24,783,033 | 240,612 | 1,035,129 | 10,050 | 269,868 | 2,620 | 339,819 | 3,299 | 26,500,588 |
| 1988 | 286,740 | 2,811 | 14,350,354 | 140,690 | 4,153,424 | 40,720 | 6,771,266 | 66,385 | 2,189,293 | 21,464 | 27,751,077 |
| 1989 | 78,999 | 790 | 13,047,378 | 130,474 | 436,892 | 4,369 | 32,994 | 3,299 | 4,745 | 47 | 13,601,008 |
| 1990 | 185,256 | 1,834 | 22,509,923 | 222,871 | 700,309 | 6,934 | 502,693 | 4,977 | 878,510 | 8,698 | 24,776,691 |
| 1991 | 50,027 | 486 | 11,002,784 | 106,823 | 650,626 | 6,317 | 402,916 | 3,912 | 502,860 | 4,882 | 12,609,213 |

Table 9. Chiginik Management Area salmon escapements by district and statistical area, 1991.

| District | Stat-Area | Chinook | Sockeye | Coho ^a | Pink ^b | Chum | Total |
|--------------------|-----------|---------|-----------|-------------------|-------------------|---------|-----------|
| Chignik Bay | 271-10 | 4,545 | 1,040,898 | 53,000 | 12,207 | 0 | 1,110,650 |
| | Total | 4,545 | 1,040,898 | 53,000 | 12,207 | 0 | 1,110,650 |
| Central | 272-20 | | | | 1,470 | 0 | 1,470 |
| | 272-30 | | | | 30,727 | 0 | 30,727 |
| | 272-50 | | | | 168,866 | 18,044 | 186,910 |
| | Total | | | | 201,063 | 18,044 | 219,107 |
| Eastern | 272-60 | | | | 36,800 | 27,635 | 64,435 |
| | 272-70 | | | | 1,900 | 17,520 | 19,420 |
| | 272-72 | | | | 6,000 | 1,700 | 7,700 |
| | 272-80 | | | 200 | 11,800 | 6,867 | 18,867 |
| | 272-90 | | | | 40,800 | 10,500 | 51,300 |
| | 272-92 | | | | 2,300 | 0 | 2,300 |
| | 272-96 | | | | 25,387 | 6,200 | 31,587 |
| | Total | | | 200 | 124,987 | 70,422 | 195,609 |
| Western | 273-70 | | | | 53,560 | 0 | 53,560 |
| | 273-72 | | | | 42,200 | 3,800 | 46,000 |
| | 273-80 | | | | 0 | 4,900 | 4,900 |
| | 273-82 | | | | 0 | 2,100 | 2,100 |
| | 273-84 | | | | 0 | 27,293 | 27,293 |
| | 273-94 | | | | 1,067 | 0 | 1,067 |
| | Total | | | | 96,827 | 38,093 | 134,920 |
| Perryville | 275-40 | | | | 160,903 | 343,042 | 503,945 |
| | 275-50 | | | | 180,853 | 0 | 180,853 |
| | 275-60 | | | | 1,700 | 200 | 1,900 |
| | Total | | | | 343,456 | 343,242 | 686,698 |
| All District Total | | 4,545 | 1,040,898 | 53,200 | 778,540 | 469,801 | 2,346,984 |

^aCoho salmon escapements estimates for Chignik Lagoon were from Eggers et al (1991). Aerial surveys for coho salmon were limited due to budget constraints.

^bEscapement estimates for pink and chum salmon based on methods of Johnson and Barrett (1988).

Table 10. Chignik River chinook salmon runs, 1960 - 1991.

| Year | Escapement ^a | Catch | Total Run ^b |
|---------------|-------------------------|-------|------------------------|
| 1960 | - | 643 | 643 |
| 1961 | - | 409 | 409 |
| 1962 | - | 435 | 435 |
| 1963 | 564 | 1,744 | 2,308 |
| 1964 | 914 | 1,099 | 2,013 |
| 1965 | 942 | 1,592 | 2,534 |
| 1966 | 822 | 636 | 1,458 |
| 1967 | 1,500 | 882 | 2,382 |
| 1968 | 1,000 | 674 | 1,674 |
| 1969 | 600 | 3,448 | 4,048 |
| 1970 | 2,500 | 1,225 | 3,725 |
| 1971 | 2,000 | 2,010 | 4,010 |
| 1972 | 1,500 | 464 | 1,964 |
| 1973 | 822 | 525 | 1,347 |
| 1974 | 672 | 255 | 927 |
| 1975 | 877 | 549 | 1,426 |
| 1976 | 700 | 763 | 1,463 |
| 1977 | 798 | 711 | 1,509 |
| 1978 | 1,197 | 1,603 | 2,800 |
| 1979 | 1,050 | 1,266 | 2,316 |
| 1980 | 876 | 2,325 | 3,201 |
| 1981 | 1,603 | 2,694 | 4,297 |
| 1982 | 2,412 | 5,236 | 7,648 |
| 1983 | 1,943 | 5,488 | 7,431 |
| 1984 | 5,806 | 4,318 | 10,124 |
| 1985 | 3,144 | 1,919 | 5,063 |
| 1986 | 3,612 | 3,037 | 6,649 |
| 1987 | 2,624 | 2,651 | 5,275 |
| 1988 | 4,868 | 7,296 | 12,164 |
| 1989 | 3,316 | 3,542 | 6,858 |
| 1990 | 4,364 | 9,901 | 14,265 |
| 1991 | 4,545 | 3,157 | 7,833 |
| <hr/> | | | |
| Avg (1960-91) | 1,985 | 2,266 | 4,251 |
| Avg (1982-91) | 3,663 | 4,655 | 8,318 |

^aNo estimate made for chinook salmon escapement after weir removal.

^bTotal run figures should be considered conservative due to the difficulty in distinguishing small chinook from sockeye salmon at the weir.

Table 11. Chignik weir chinook salmon escapement estimates by day, 1991.

| Escapements ^{a,b} | | | Escapements ^{a,b} | | |
|----------------------------|-------|------------|----------------------------|----------|------------|
| Date | Daily | Cumulative | Date | Daily | Cumulative |
| 03-Jun | 0 | 0 | 05-Jul | 246 | 998 |
| 04-Jun | 0 | 0 | 06-Jul | 168 | 1166 |
| 05-Jun | 0 | 0 | 07-Jul | 66 | 1232 |
| 06-Jun | 0 | 0 | 08-Jul | 72 | 1304 |
| 07-Jun | 0 | 0 | 09-Jul | 168 | 1472 |
| 08-Jun | 0 | 0 | 10-Jul | 180 | 1652 |
| 09-Jun | 0 | 0 | 11-Jul | 180 | 1832 |
| 10-Jun | 0 | 0 | 12-Jul | 54 | 1886 |
| 11-Jun | 0 | 0 | 13-Jul | 168 | 2054 |
| 12-Jun | 0 | 0 | 14-Jul | 150 | 2205 |
| 13-Jun | 0 | 0 | 15-Jul | 66 | 2271 |
| 14-Jun | 0 | 0 | 16-Jul | 144 | 2415 |
| 15-Jun | 0 | 0 | 17-Jul | 66 | 2481 |
| 16-Jun | 0 | 0 | 18-Jul | 102 | 2583 |
| 17-Jun | 0 | 0 | 19-Jul | 66 | 2649 |
| 18-Jun | 0 | 0 | 20-Jul | 498 | 3147 |
| 19-Jun | 6 | 6 | 21-Jul | 66 | 3213 |
| 20-Jun | 0 | 6 | 22-Jul | 384 | 3609 |
| 21-Jun | 0 | 6 | 23-Jul | 210 | 3819 |
| 22-Jun | 0 | 6 | 24-Jul | 192 | 4011 |
| 23-Jun | 12 | 18 | 25-Jul | 156 | 4167 |
| 24-Jun | 24 | 42 | 26-Jul | 54 | 4221 |
| 25-Jun | 12 | 54 | 27-Jul | 48 | 4269 |
| 26-Jun | 30 | 84 | 28-Jul | 42 | 4311 |
| 27-Jun | 72 | 156 | 29-Jul | 60 | 4371 |
| 28-Jun | 79 | 235 | 30-Jul | 30 | 4401 |
| 29-Jun | 36 | 272 | 31-Jul | 54 | 4455 |
| 30-Jun | 48 | 320 | 01-Aug | 6 | 4461 |
| 01-Jul | 90 | 410 | 02-Aug | 24 | 4485 |
| 02-Jul | 144 | 554 | 03-Aug | 18 | 4503 |
| 03-Jul | 84 | 638 | 04-Aug | 42 | 4545 |
| 04-Jul | 114 | 752 | 05-Aug | Weir Out | |

^aEscapement estimates are considered conservative due to the difficulty of distinguishing small chinook from sockeye salmon as they pass through the weir.

^bNo adjustments are made for escapement after removal of the weir.

Table 12. Daily sockeye salmon escapement counts at the Chignik weir site, 1991.

| Date | Escapement | | Date | Escapement | |
|--------|------------|------------|---------------------|------------|------------|
| | Daily | Cumulative | | Daily | Cumulative |
| 27-May | - | - | 02-Jul | 12,330 | 647,038 |
| 28-May | - | - | 03-Jul | 20,262 | 667,300 |
| 29-May | - | - | 04-Jul | 11,005 | 678,305 |
| 30-May | - | - | 05-Jul | 16,032 | 694,337 |
| 31-May | - | - | 06-Jul | 4,096 | 698,433 |
| 01-Jun | - | - | 07-Jul | 1,626 | 700,059 |
| 02-Jun | - | - | 08-Jul | 1,695 | 701,754 |
| 03-Jun | 708 | 708 | 09-Jul | 1,986 | 703,740 |
| 04-Jun | 3,192 | 3,900 | 10-Jul | 2,130 | 705,870 |
| 05-Jun | 2,754 | 6,654 | 11-Jul | 3,526 | 709,396 |
| 06-Jun | 4,187 | 10,841 | 12-Jul | 1,307 | 710,703 |
| 07-Jun | 1,844 | 12,685 | 13-Jul | 1,923 | 712,626 |
| 08-Jun | 3,793 | 16,478 | 14-Jul | 2,261 | 714,887 |
| 09-Jun | 11,448 | 27,926 | 15-Jul | 7,467 | 722,354 |
| 10-Jun | 47,647 | 75,573 | 16-Jul | 22,828 | 745,182 |
| 11-Jun | 40,538 | 116,111 | 17-Jul | 17,001 | 762,183 |
| 12-Jun | 14,118 | 130,229 | 18-Jul | 24,448 | 786,631 |
| 13-Jun | 2,006 | 132,235 | 19-Jul | 15,191 | 801,822 |
| 14-Jun | 1,919 | 134,154 | 20-Jul | 16,702 | 818,524 |
| 15-Jun | 4,332 | 138,486 | 21-Jul | 13,814 | 832,338 |
| 16-Jun | 2,470 | 140,956 | 22-Jul | 24,006 | 856,344 |
| 17-Jun | 1,638 | 142,594 | 23-Jul | 12,796 | 869,140 |
| 18-Jun | 2,088 | 144,682 | 24-Jul | 13,448 | 882,588 |
| 19-Jun | 2,866 | 147,548 | 25-Jul | 15,719 | 898,307 |
| 20-Jun | 2,604 | 150,152 | 26-Jul | 10,493 | 908,800 |
| 21-Jun | 14,407 | 164,559 | 27-Jul | 10,343 | 919,143 |
| 22-Jun | 56,248 | 220,807 | 28-Jul | 8,337 | 927,480 |
| 23-Jun | 62,250 | 283,057 | 29-Jul | 6,730 | 934,210 |
| 24-Jun | 129,144 | 412,201 | 30-Jul | 1,656 | 935,866 |
| 25-Jun | 37,753 | 449,954 | 31-Jul | 1,525 | 937,391 |
| 26-Jun | 29,804 | 479,758 | 01-Aug | 1,092 | 938,483 |
| 27-Jun | 42,441 | 522,199 | 02-Aug | 2,311 | 940,794 |
| 28-Jun | 36,721 | 558,920 | 03-Aug | 4,368 | 945,162 |
| 29-Jun | 37,013 | 595,933 | 04-Aug | 6,851 | 952,013 |
| 30-Jun | 16,165 | 612,098 | 05-Aug ^a | 88,085 | 1,040,098 |
| 01-Jul | 22,610 | 634,708 | | | |

^a Time series analysis (autoregressive integrated moving average) of catch and escapement was used to estimate sockeye salmon escapements after weir removal on 5 August.

Table 13. Daily sockeye salmon escapement counts at the Black River weir site, 1991.

| Date | Total Daily | Total Accum. | Date | Total Daily | Total Accum. |
|--------|----------------|-----------------|--------|----------------|-----------------|
| 03-Jun | - | - | 01-Jul | 2,592 | 143,100 |
| 04-Jun | - | - | 02-Jul | 2,109 | 145,209 |
| 05-Jun | - | - | 03-Jul | 648 | 145,857 |
| 06-Jun | - | - | 04-Jul | 8,643 | 154,500 |
| 07-Jun | - | - | 05-Jul | 2,807 | 157,307 |
| 08-Jun | - | - | 06-Jul | 5,925 | 163,232 |
| 09-Jun | - | - | 07-Jul | 936 | 164,168 |
| 10-Jun | - | - | 08-Jul | 623 | 164,791 |
| 11-Jun | | | 09-Jul | 2,197 | 166,988 |
| 12-Jun | 2,280 | 2,280 | 10-Jul | 373 | 167,361 |
| 13-Jun | 0 | 2,280 | 11-Jul | 318 | 167,679 |
| 14-Jun | 11,034 | 13,314 | 12-Jul | 455 | 168,134 |
| 15-Jun | 11,209 | 24,523 | 13-Jul | 657 | 168,791 |
| 16-Jun | 8,440 | 32,963 | 14-Jul | 75 | 168,866 |
| 17-Jun | 9,603 | 42,566 | 15-Jul | 7 | 168,873 |
| 18-Jun | 6,451 | 49,017 | 16-Jul | 313 | 169,186 |
| 19-Jun | 158 | 49,175 | 17-Jul | 0 | 169,186 |
| 20-Jun | 492 | 49,667 | 18-Jul | 8 | 169,194 |
| 21-Jun | 2,710 | 52,377 | 19-Jul | 10 | 169,204 |
| 22-Jun | 847 | 53,224 | 20-Jul | 2 | 169,206 |
| 23-Jun | 427 | 53,696 | 21-Jul | 2,095 | 170,301 |
| 24-Jun | 0 | 53,696 | 22-Jul | 1,004 | 172,305 |
| 25-Jun | 0 | 53,696 | 23-Jul | 2,859 | 175,164 |
| 26-Jun | 4,540 | 58,236 | 24-Jul | 2,241 | 177,405 |
| 27-Jun | 6,603 | 64,831 | 25-Jul | 945 | 178,350 |
| 28-Jun | 36,495 | 111,334 | 26-Jul | 825 | 179,175 |
| 29-Jun | 27,479 | 128,813 | 27-Jul | Weir out | 179,175 |
| 30-Jun | 11,695 | 140,508 | | | |

Table 14. Chignik Lake and Black Lake sockeye salmon escapements through the Chignik River weir using daily percentages derived from the inseason time-of-entry curve, 1991.

| Date | Escapement | | | | | |
|--------|----------------|---------------|----------------------------|--------------------------|-------------------------|-----------------------|
| | Total Daily | Total Cum. | Percent Chignik Lake | Chignik Lake Daily | Chignik Lake Cum. | Black Lake Cum. |
| 03-Jun | 708 | 708 | 0.3 | 2 | 2 | 706 |
| 04-Jun | 3,192 | 3,900 | 0.4 | 12 | 14 | 3,886 |
| 05-Jun | 2,754 | 6,654 | 0.4 | 11 | 25 | 6,629 |
| 06-Jun | 4,187 | 10,841 | 0.5 | 20 | 45 | 10,796 |
| 07-Jun | 1,844 | 12,685 | 0.6 | 11 | 56 | 12,629 |
| 08-Jun | 3,793 | 16,478 | 0.7 | 26 | 82 | 16,396 |
| 09-Jun | 11,448 | 27,926 | 0.7 | 80 | 162 | 27,764 |
| 10-Jun | 47,647 | 75,573 | 0.9 | 428 | 590 | 74,983 |
| 11-Jun | 40,538 | 116,111 | 1.0 | 405 | 995 | 115,116 |
| 12-Jun | 14,118 | 130,229 | 1.1 | 155 | 1,150 | 129,079 |
| 13-Jun | 2,006 | 132,235 | 1.3 | 26 | 1,176 | 131,059 |
| 14-Jun | 1,919 | 134,154 | 1.5 | 28 | 1,204 | 132,950 |
| 15-Jun | 4,332 | 138,486 | 1.7 | 73 | 1,277 | 137,209 |
| 16-Jun | 2,470 | 140,956 | 2.0 | 49 | 1,326 | 139,630 |
| 17-Jun | 1,638 | 142,594 | 2.2 | 36 | 1,362 | 141,232 |
| 18-Jun | 2,088 | 144,682 | 2.6 | 54 | 1,416 | 143,266 |
| 19-Jun | 2,866 | 147,548 | 2.9 | 83 | 1,499 | 146,049 |
| 20-Jun | 2,604 | 150,152 | 3.4 | 88 | 1,587 | 148,565 |
| 21-Jun | 14,407 | 164,559 | 3.8 | 547 | 2,134 | 162,425 |
| 22-Jun | 56,248 | 220,807 | 4.4 | 2,474 | 4,608 | 216,199 |
| 23-Jun | 62,250 | 283,057 | 5.0 | 3,112 | 7,720 | 275,337 |
| 24-Jun | 129,144 | 412,201 | 5.7 | 7,361 | 15,081 | 397,120 |
| 25-Jun | 37,753 | 449,954 | 6.5 | 2,453 | 17,534 | 432,420 |
| 26-Jun | 29,804 | 479,758 | 7.4 | 2,205 | 19,739 | 460,019 |
| 27-Jun | 42,441 | 522,199 | 8.4 | 3,565 | 23,304 | 498,895 |
| 28-Jun | 36,721 | 558,920 | 9.5 | 3,488 | 26,792 | 532,128 |
| 29-Jun | 37,013 | 595,933 | 10.8 | 3,997 | 30,789 | 565,144 |
| 30-Jun | 16,165 | 612,098 | 12.2 | 1,972 | 32,761 | 579,337 |
| 01-Jul | 22,610 | 634,708 | 13.8 | 3,120 | 35,881 | 598,827 |
| 02-Jul | 12,330 | 647,038 | 15.5 | 1,911 | 37,792 | 609,246 |
| 03-Jul | 20,262 | 667,300 | 17.4 | 3,525 | 41,317 | 625,983 |
| 04-Jul | 11,005 | 678,305 | 19.5 | 2,145 | 43,462 | 634,843 |
| 05-Jul | 16,032 | 694,337 | 21.7 | 3,478 | 46,940 | 647,397 |
| 06-Jul | 4,096 | 698,433 | 24.2 | 991 | 47,931 | 650,502 |
| 07-Jul | 1,626 | 700,059 | 26.8 | 435 | 48,366 | 651,693 |
| 08-Jul | 1,695 | 701,754 | 29.6 | 501 | 48,867 | 652,887 |
| 09-Jul | 1,986 | 703,740 | 32.6 | 647 | 49,514 | 654,226 |
| 10-Jul | 2,130 | 705,870 | 35.7 | 760 | 50,274 | 655,596 |

-Continued-

Table 14. (page 2 of 2)

| Date | Escapement | | | | | |
|--------|----------------|---------------|----------------------------|--------------------------|-------------------------|-----------------------|
| | Total Daily | Total Cum. | Percent Chignik Lake | Chignik Lake Daily | Chignik Lake Cum. | Black Lake Cum. |
| 11-Jul | 3,526 | 709,396 | 39.0 | 1,375 | 51,649 | 657,747 |
| 12-Jul | 1,307 | 710,703 | 42.2 | 552 | 52,201 | 658,502 |
| 13-Jul | 1,923 | 712,626 | 45.7 | 878 | 53,079 | 659,547 |
| 14-Jul | 2,261 | 714,887 | 49.2 | 1,112 | 54,191 | 660,696 |
| 15-Jul | 7,467 | 722,354 | 52.6 | 3,927 | 58,118 | 664,236 |
| 16-Jul | 22,828 | 745,182 | 56.1 | 12,806 | 70,924 | 674,258 |
| 17-Jul | 17,001 | 762,183 | 59.5 | 10,115 | 81,039 | 681,144 |
| 18-Jul | 24,448 | 786,631 | 62.8 | 15,353 | 96,392 | 690,239 |
| 19-Jul | 15,191 | 801,822 | 65.9 | 10,010 | 106,402 | 695,420 |
| 20-Jul | 16,702 | 818,524 | 69.0 | 11,524 | 117,926 | 700,598 |
| 21-Jul | 13,814 | 832,338 | 71.9 | 9,932 | 127,858 | 704,480 |
| 22-Jul | 24,006 | 856,344 | 74.6 | 17,908 | 145,766 | 710,578 |
| 23-Jul | 12,796 | 869,140 | 77.1 | 9,865 | 155,631 | 713,509 |
| 24-Jul | 13,448 | 882,588 | 80.3 | 10,798 | 166,429 | 716,159 |
| 25-Jul | 15,719 | 898,307 | 83.4 | 13,109 | 179,538 | 718,769 |
| 26-Jul | 10,493 | 908,800 | 86.5 | 9,076 | 188,614 | 720,186 |
| 27-Jul | 10,343 | 919,143 | 89.7 | 9,277 | 197,891 | 721,252 |
| 28-Jul | 8,337 | 927,480 | 92.8 | 7,736 | 205,627 | 721,853 |
| 29-Jul | 6,730 | 934,210 | 96.0 | 6,460 | 212,087 | 722,123 |
| 30-Jul | 1,656 | 935,866 | 99.1 | 1,641 | 213,728 | 722,138 |
| 31-Jul | 1,525 | 937,391 | 100.0 | 1,525 | 215,253 | 722,138 |
| 01-Aug | 1,092 | 938,483 | 100.0 | 1,092 | 216,345 | 722,138 |
| 02-Aug | 2,311 | 940,794 | 100.0 | 2,311 | 218,656 | 722,138 |
| 03-Aug | 4,368 | 945,162 | 100.0 | 4,368 | 223,024 | 722,138 |
| 04-Aug | 6,851 | 952,013 | 100.0 | 6,851 | 229,875 | 722,138 |
| 05-Aug | Weir Out | | | | | |

Table 15. Age composition of sockeye scale samples collected from Black Lake and Black River, 1991.

| Black Lake Beach Siene | | | | | | | |
|------------------------|-----------------|---------------------|------|------|-----|------|------|
| Date | Sample Size (n) | Percent Composition | | | | | |
| | | 0.3 | 1.2 | 1.3 | 1.4 | 2.2 | 2.3 |
| 6/20 | 181 | 0.6 | 1.7 | 86.2 | 0.0 | 0.0 | 11.6 |
| 6/21 | 227 | 0.0 | 4.0 | 88.5 | 0.9 | 0.4 | 6.2 |
| 6/27 | 129 | 0.0 | 3.9 | 90.7 | 1.6 | 0.0 | 3.9 |
| 6/28 | 248 | 0.0 | 4.0 | 91.9 | 0.8 | 0.0 | 3.2 |
| 6/29 | 444 | 0.0 | 4.7 | 88.1 | 0.5 | 0.5 | 6.3 |
| 6/30 | 332 | 0.0 | 13.0 | 85.2 | 0.3 | 0.3 | 1.2 |
| 7/1 | 118 | 0.0 | 9.3 | 89.0 | 0.0 | 0.0 | 1.7 |
| | 1679 | 0.1 | 6.1 | 88.2 | 0.5 | 0.2 | 4.9 |
| Black River Trap | | | | | | | |
| Date | Sample Size (n) | Percent Composition | | | | | |
| | | 1.2 | 1.3 | 1.4 | 2.2 | 2.3 | 2.4 |
| 6/8 | 137 | 0.0 | 85.4 | 0.0 | 0.0 | 14.6 | 0.0 |
| 6/9 | 378 | 0.0 | 78.6 | 0.5 | 0.0 | 20.9 | 0.3 |
| 6/25 | 202 | 1.0 | 85.6 | 0.0 | 0.0 | 13.4 | 0.0 |
| 6/26 | 306 | 2.6 | 85.6 | 0.3 | 0.7 | 10.8 | 0.3 |
| 7/3 | 499 | 1.8 | 88.0 | 0.2 | 1.2 | 8.8 | 0.0 |
| 7/10 | 435 | 3.0 | 89.0 | 0.7 | 0.7 | 6.7 | 0.0 |
| | 1957 | 1.6 | 85.6 | 0.4 | 0.6 | 11.9 | 0.1 |

Table 16. Sockeye salmon age composition from scale samples collected from the Chignik Lagoon commercial fishery, 1991.

| Date | Sample Size (N) | Percent Composition | | | | | | | | | |
|-------|-----------------|---------------------|-----|-----|------|------|-----|-----|------|------|-----|
| | | 0.3 | 0.4 | 1.1 | 1.2 | 1.3 | 1.4 | 2.1 | 2.2 | 2.3 | 2.4 |
| 6/09 | 515 | 0.0 | 0.0 | 0.0 | 1.7 | 82.9 | 0.8 | 0.0 | 0.2 | 14.2 | 0.0 |
| 6/17 | 512 | 0.0 | 0.0 | 0.0 | 2.0 | 81.4 | 0.6 | 0.0 | 0.8 | 15.2 | 0.0 |
| 6/24 | 554 | 0.0 | 0.0 | 0.0 | 4.3 | 81.0 | 1.6 | 0.0 | 1.3 | 11.6 | 0.0 |
| 6/27 | 537 | 0.0 | 0.0 | 0.2 | 10.8 | 81.0 | 1.3 | 0.0 | 1.7 | 4.8 | 0.0 |
| 6/30 | 527 | 0.2 | 0.0 | 0.0 | 12.5 | 74.2 | 0.8 | 0.2 | 4.7 | 7.0 | 0.0 |
| 7/04 | 511 | 0.0 | 0.0 | 0.0 | 17.8 | 61.1 | 1.0 | 0.0 | 6.1 | 14.1 | 0.0 |
| 7/06 | 520 | 0.0 | 0.0 | 0.0 | 4.8 | 77.1 | 0.2 | 0.0 | 1.7 | 16.0 | 0.2 |
| 7/08 | 530 | 0.4 | 0.0 | 0.2 | 7.7 | 61.5 | 0.2 | 0.6 | 4.2 | 25.3 | 0.0 |
| 7/10 | 399 | 0.3 | 0.0 | 0.0 | 12.3 | 56.6 | 0.3 | 0.0 | 3.3 | 27.3 | 0.0 |
| 7/12 | 526 | 0.2 | 0.0 | 0.8 | 10.6 | 48.5 | 0.0 | 0.0 | 7.6 | 32.1 | 0.0 |
| 7/15 | 333 | 0.0 | 0.0 | 0.9 | 10.8 | 31.5 | 0.3 | 0.3 | 9.6 | 46.5 | 0.0 |
| 7/17 | 506 | 0.2 | 0.0 | 0.0 | 6.9 | 32.0 | 0.2 | 0.0 | 9.7 | 49.2 | 1.2 |
| 7/19 | 522 | 0.0 | 0.0 | 0.2 | 6.9 | 19.7 | 0.2 | 0.2 | 14.2 | 57.3 | 0.8 |
| 7/22 | 499 | 0.0 | 0.2 | 0.6 | 10.4 | 22.0 | 0.0 | 0.4 | 18.0 | 46.7 | 0.4 |
| 7/25 | 501 | 0.2 | 0.0 | 0.0 | 8.2 | 10.6 | 0.0 | 0.0 | 26.3 | 53.1 | 0.8 |
| 7/30 | 495 | 0.0 | 0.0 | 0.0 | 3.2 | 9.9 | 0.0 | 0.0 | 29.1 | 51.9 | 2.2 |
| 8/07 | 367 | 0.5 | 0.0 | 0.5 | 7.1 | 2.5 | 0.0 | 3.8 | 39.5 | 42.2 | 1.9 |
| 8/12 | 516 | 0.0 | 0.0 | 0.0 | 1.4 | 1.7 | 0.0 | 0.2 | 35.3 | 58.3 | 2.1 |
| 8/19 | 370 | 0.0 | 0.0 | 0.3 | 1.9 | 2.4 | 0.3 | 4.6 | 28.6 | 59.5 | 2.2 |
| 8/28 | 418 | 0.0 | 0.0 | 0.5 | 1.0 | 6.2 | 0.2 | 2.2 | 20.6 | 67.5 | 1.7 |
| Total | | 9658 | | | | | | | | | |

Table 17. Harvest of Chignik bound sockeye salmon in the Chignik, Cape Igvak, and Southeast District Mainland Areas^a from 1964-1991.

| Year | <u>Chignik Area</u> | | <u>Cape Igvak</u> | | <u>Southeast District Mainland Area</u> | | Total |
|-------------------|---------------------|---------|-------------------|---------|---|---------|-----------|
| | Catch | Percent | Catch | Percent | Catch | Percent | |
| 1964 ^b | 556,890 | 90.57 | 14,980 | 2.44 | 43,021 | 7.00 | 614,890 |
| 1965 | 599,553 | 89.94 | 11,021 | 1.65 | 56,020 | 8.40 | 666,594 |
| 1966 | 219,794 | 87.99 | 18,003 | 7.21 | 12,011 | 4.81 | 249,808 |
| 1967 | 462,000 | 91.48 | 23,014 | 4.56 | 20,021 | 3.96 | 505,034 |
| 1968 | 977,382 | 82.53 | 135,951 | 11.48 | 70,959 | 5.99 | 1,184,292 |
| 1969 | 394,135 | 78.96 | 97,982 | 19.63 | 7,013 | 1.41 | 499,130 |
| 1970 | 1,325,883 | 72.79 | 427,339 | 23.46 | 68,181 | 3.74 | 1,821,403 |
| 1971 | 1,016,136 | 76.97 | 253,044 | 19.17 | 50,952 | 3.86 | 1,320,132 |
| 1972 | 378,669 | 86.32 | 42,012 | 9.58 | 17,999 | 4.10 | 438,680 |

1964-72 catch and percentage figures are total for the entire season. Catch figures and percentages after 1972 are only through July 25.

| | | | | | | | |
|---------------------|-----------|-------|---------|-------|---------|-------|-----------|
| 1973 ^c | 769,256 | 88.99 | 57,098 | 6.61 | 38,102 | 4.41 | 864,456 |
| 1974 | 530,278 | 74.12 | 120,602 | 16.86 | 64,563 | 9.02 | 715,443 |
| 1975 | 115,984 | 81.78 | 23,635 | 16.67 | 2,205 | 1.55 | 141,824 |
| 1976 | 792,024 | 83.08 | 117,926 | 12.37 | 43,356 | 4.55 | 953,306 |
| 1977 | 1,547,285 | 90.61 | 128,852 | 7.55 | 31,498 | 1.84 | 1,707,635 |
| 1978 ^{d,e} | 1,454,389 | 85.48 | 225,078 | 13.23 | 22,029 | 1.29 | 1,701,496 |
| 1979 ^f | 794,504 | 91.98 | 13,950 | 1.61 | 55,344 | 6.41 | 863,798 |
| 1980 | 670,001 | 91.17 | 32 | 0.00 | 64,862 | 8.83 | 734,895 |
| 1981 | 1,606,290 | 79.89 | 282,342 | 14.04 | 121,870 | 6.06 | 2,010,502 |
| 1982 | 1,250,939 | 84.53 | 166,219 | 11.23 | 62,767 | 4.24 | 1,479,925 |
| 1983 | 1,450,832 | 72.57 | 320,932 | 16.05 | 227,392 | 11.37 | 1,999,156 |
| 1984 | 2,474,405 | 73.93 | 449,360 | 13.43 | 423,068 | 12.64 | 3,346,833 |
| 1985 ^g | 696,169 | 79.91 | 123,627 | 14.19 | 51,421 | 5.90 | 871,217 |
| 1986 | 1,456,729 | 82.64 | 188,017 | 10.67 | 118,006 | 6.69 | 1,762,752 |
| 1987 | 1,659,915 | 78.02 | 320,813 | 15.08 | 146,886 | 6.90 | 2,127,614 |
| 1988 | 678,912 | 94.95 | 10,520 | 1.47 | 25,565 | 3.58 | 714,997 |
| 1989 | 502,477 | 99.12 | 0 | 0.00 | 4,485 | 0.88 | 506,962 |
| 1990 | 1,196,599 | 84.92 | 83,967 | 5.96 | 128,601 | 9.13 | 1,409,167 |
| 1991 ^h | 1,966,986 | 80.49 | 324,075 | 13.26 | 152,714 | 6.25 | 2,443,775 |

^aThe Cape Igvak and Southeast District Mainland figures represent 80% of the total sockeye catches for those areas as it is estimated that roughly 80% of the sockeye caught in the Cape Igvak section and Southeast District Mainland Area are destined for Chignik.

^bThe data from 1964 - 1972 are based on total yearly catches. Prior to 1973, Cape Igvak and Southeast District Mainland fisheries were set by regulation to weekly fishing periods, usually 5 days per week. Time modifications were implemented when poor escapements occurred at Chignik.

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Table 17. (page 2 of 2)

^cDuring 1973 through 1977 all three fisheries were managed on a day by day basis.

^dFrom 1978 - 1991, the Cape Igvak Fishery Management Plan allocated 15 percent of the total sockeye catch destined for Chignik.

^eDuring 1978, seining prior to July 11 was disallowed in the Southeast District Mainland. The set gillnet fishery was allowed to fish 3 days per week through July 10 after which the fishery was managed on the basis of local stocks.

^fDuring 1979-1984 and prior to July 11, fishing was allowed 5 days per week in the Southeast District Mainland Area (including Beaver Bay) with an estimated ceiling of 60,000 sockeye destined for Chignik. If the Chignik Area sockeye catch was 1,000,000 or more before July 11, the 60,000 ceiling was to be dropped.

^gBeginning in 1985, Southeast District Mainland Area was placed on an allocation of 6.2 percent of the total estimated Chignik sockeye catch through July 25. After July 25, Southeast District Mainland Area is managed on a local stock basis. The allocation changed back to an even 6 percent beginning in 1988. Seining is still not allowed prior to July 11.

^hIncludes overescapement of 278,305 sockeye counted past the weir during the Chignik Area seiners' boycott (Jun 23 - Jul 4).

Table 18. Sockeye harvests in the Chignik Management Area and 80 percent of the harvest in the Cape Igvak and Southeast District Mainland Areas, 1964-91.

| YEAR | Harvest To July 25 Only | | | | Harvest For Entire Season | | | |
|------|-------------------------|------------|--------------------|-----------|---------------------------|------------|--------------------|-----------|
| | Chignik | Cape Igvak | Southeast Mainland | Total | Chignik | Cape Igvak | Southeast Mainland | Total |
| 1964 | - | - | - | - | 556,890 | 14,980 | 43,021 | 614,891 |
| 1965 | - | - | - | - | 599,553 | 11,021 | 56,020 | 666,594 |
| 1966 | - | - | - | - | 219,794 | 18,003 | 12,011 | 249,808 |
| 1967 | - | - | - | - | 462,000 | 23,014 | 20,021 | 505,035 |
| 1968 | - | - | - | - | 977,382 | 135,951 | 70,959 | 1,184,292 |
| 1969 | - | - | - | - | 394,135 | 97,982 | 7,013 | 499,130 |
| 1970 | 1,325,883 | 427,338 | 67,582 | 1,820,803 | 1,325,883 | 427,339 | 68,181 | 1,821,403 |
| 1971 | - | - | - | - | 1,016,136 | 253,044 | 50,952 | 1,320,132 |
| 1972 | - | - | - | - | 378,669 | 42,012 | 17,999 | 438,680 |
| 1973 | 769,256 | 57,098 | 37,614 | 863,968 | 870,352 | 57,098 | 38,266 | 965,716 |
| 1974 | 530,278 | 120,602 | 64,563 | 715,443 | 662,905 | 120,602 | 65,514 | 849,021 |
| 1975 | 115,984 | 23,635 | 2,205 | 141,824 | 399,593 | 23,635 | 2,205 | 425,433 |
| 1976 | 792,024 | 117,926 | 43,356 | 953,306 | 1,163,728 | 117,978 | 44,781 | 1,326,487 |
| 1977 | 1,547,285 | 128,852 | 31,498 | 1,707,635 | 1,972,207 | 128,852 | 35,401 | 2,136,460 |
| 1978 | 1,454,389 | 225,078 | 21,952 | 1,701,419 | 1,576,283 | 225,117 | 23,990 | 1,825,390 |
| 1979 | 794,504 | 13,950 | 55,344 | 863,798 | 1,049,497 | 20,436 | 82,153 | 1,152,086 |
| 1980 | 670,001 | 32 | 63,570 | 733,603 | 859,966 | 631 | 88,046 | 948,643 |
| 1981 | 1,606,290 | 282,342 | 121,870 | 2,010,502 | 1,839,469 | 283,826 | 166,034 | 2,289,329 |
| 1982 | 1,250,939 | 166,219 | 62,767 | 1,479,925 | 1,521,857 | 167,113 | 86,849 | 1,775,819 |
| 1983 | 1,450,832 | 320,932 | 227,392 | 1,999,156 | 1,824,175 | 323,004 | 297,429 | 2,444,608 |
| 1984 | 2,474,405 | 449,360 | 423,068 | 3,346,833 | 2,660,478 | 450,054 | 487,938 | 3,598,470 |
| 1985 | 696,169 | 123,627 | 51,421 | 871,217 | 922,151 | 125,134 | 93,206 | 1,140,491 |
| 1986 | 1,456,729 | 188,017 | 118,006 | 1,762,752 | 1,645,834 | 188,126 | 147,056 | 1,981,016 |
| 1987 | 1,659,915 | 320,813 | 146,886 | 2,127,614 | 1,898,838 | 343,422 | 188,983 | 2,431,243 |
| 1988 | 678,912 | 10,520 | 19,320 | 708,752 | 795,841 | 27,681 | 79,101 | 902,623 |
| 1989 | 502,477 | - | 4,485 | 506,962 | 1,159,287 | - | 138,567 | 1,297,854 |
| 1990 | 1,196,599 | 83,967 | 128,601 | 1,409,167 | 2,093,650 | 341,530 | 228,931 | 2,443,000 |
| 1991 | 1,966,986 ^a | 324,075 | 152,714 | 2,443,775 | 2,173,970 | 341,530 | 228,931 | 2,466,126 |

^aIncludes overescapement of 278,305 sockeye counted past the weir during the Chignik Area seiners' boycott (June 23 - July 4).

Table 19. Estimated stock composition of age-1.3 Chignik sockeye salmon from commercial catch samples, based on scale pattern analysis, 1991.

| Sample Date | Sample Size (n) | Stock | Adjusted Estimate | Estimated Variance | Smoothed Estimate | Smoothed Estimated Variance |
|-------------|-----------------|--------------|-------------------|--------------------|-------------------|-----------------------------|
| 17-Jun | 102 | Black Lake | 0.751 | 0.35623 | 0.834 | 0.38371 |
| | | Chignik Lake | 0.249 | 0.35623 | 0.166 | 0.38371 |
| 25-Jun | 99 | Black Lake | 1.000 | 0.42067 | 0.834 | 0.39435 |
| | | Chignik Lake | 0.000 | 0.42067 | 0.166 | 0.39435 |
| 27-Jun | 107 | Black Lake | 0.847 | 0.37082 | 0.949 | 0.39240 |
| | | Chignik Lake | 0.153 | 0.37082 | 0.051 | 0.39240 |
| 30-Jun | 103 | Black Lake | 1.000 | 0.40729 | 0.898 | 0.39514 |
| | | Chignik Lake | 0.000 | 0.40729 | 0.102 | 0.39514 |
| 04-Jul | 100 | Black Lake | 1.000 | 0.39514 | 1.000 | 0.39210 |
| | | Chignik Lake | 0.000 | 0.39514 | 0.000 | 0.39210 |
| 06-Jul | 99 | Black Lake | 0.733 | 0.37082 | 0.911 | 0.37538 |
| | | Chignik Lake | 0.267 | 0.37082 | 0.089 | 0.37538 |
| 08-Jul | 98 | Black Lake | 0.455 | 0.36474 | 0.640 | 0.36660 |
| | | Chignik Lake | 0.545 | 0.36474 | 0.360 | 0.36660 |
| 10-Jul | 102 | Black Lake | 0.654 | 0.36474 | 0.521 | 0.37128 |
| | | Chignik Lake | 0.346 | 0.36474 | 0.479 | 0.37128 |
| 12-Jul | 100 | Black Lake | 1.000 | 0.39088 | 0.769 | 0.40471 |
| | | Chignik Lake | 0.000 | 0.39088 | 0.231 | 0.40471 |
| 15-Jul | 66 | Black Lake | 1.000 | 0.47234 | 1.000 | 0.42918 |
| | | Chignik Lake | 0.000 | 0.47234 | 0.022 | 0.42918 |
| 17-Jul | 99 | Black Lake | 0.933 | 0.38116 | 0.978 | 0.41489 |
| | | Chignik Lake | 0.067 | 0.38116 | 0.223 | 0.41489 |
| 19-Jul | 71 | Black Lake | 0.454 | 0.42492 | 0.773 | 0.41049 |
| | | Chignik Lake | 0.546 | 0.42492 | 0.227 | 0.41049 |
| 22-Jul | 77 | Black Lake | 0.463 | 0.41094 | 0.460 | 0.41560 |
| | | Chignik Lake | 0.537 | 0.41094 | 0.540 | 0.41560 |

Table 20. Estimated stock composition of age-2.3 Chignik sockeye salmon from commercial catch samples, based on scale pattern analysis, 1991.

| Sample Date | Sample Size | Stock | Adjusted Estimate | Estimated Variance | Smoothed Estimate | Smoothed Estimated Variance |
|-------------|-------------|--------------|-------------------|--------------------|-------------------|-----------------------------|
| 09-Jun | 53 | Black Lake | 1.000 | 0.30395 | 0.863 | 0.32178 |
| | | Chignik Lake | 0.000 | 0.30395 | 0.137 | 0.32178 |
| 17-Jun | 29 | Black Lake | 0.588 | 0.35745 | 0.647 | 0.33663 |
| | | Chignik Lake | 0.412 | 0.35745 | 0.103 | 0.33663 |
| 25-Jun | 35 | Black Lake | 0.658 | 0.32766 | 0.459 | 0.37964 |
| | | Chignik Lake | 0.342 | 0.32766 | 0.292 | 0.37964 |
| 27-Jun | 14 | Black Lake | 0.404 | 0.50578 | 0.430 | 0.43951 |
| | | Chignik Lake | 0.596 | 0.50578 | 0.320 | 0.43951 |
| 30-Jun | 19 | Black Lake | 0.871 | 0.41884 | 0.420 | 0.40562 |
| | | Chignik Lake | 0.129 | 0.41884 | 0.330 | 0.40562 |
| 04-Jul | 52 | Black Lake | 0.882 | 0.27903 | 0.656 | 0.31246 |
| | | Chignik Lake | 0.118 | 0.27903 | 0.094 | 0.31246 |
| 06-Jul | 55 | Black Lake | 0.759 | 0.27295 | 0.631 | 0.27629 |
| | | Chignik Lake | 0.241 | 0.27295 | 0.119 | 0.27629 |
| 09-Jul | 50 | Black Lake | 0.617 | 0.28024 | 0.534 | 0.26915 |
| | | Chignik Lake | 0.383 | 0.28024 | 0.216 | 0.26915 |
| 10-Jul | 71 | Black Lake | 0.429 | 0.24316 | 0.416 | 0.26687 |
| | | Chignik Lake | 0.571 | 0.24316 | 0.334 | 0.26687 |
| 12-Jul | 46 | Black Lake | 0.095 | 0.30091 | 0.238 | 0.29103 |
| | | Chignik Lake | 0.905 | 0.30091 | 0.512 | 0.29103 |
| 15-Jul | 43 | Black Lake | 0.000 | 0.31915 | 0.048 | 0.30775 |
| | | Chignik Lake | 1.000 | 0.31915 | 0.703 | 0.30775 |
| 17-Jul | 52 | Black Lake | 0.000 | 0.29179 | 0.000 | 0.29742 |
| | | Chignik Lake | 1.000 | 0.29179 | 0.750 | 0.29742 |
| 19-Jul | 49 | Black Lake | 0.295 | 0.28693 | 0.074 | 0.29544 |
| | | Chignik Lake | 0.705 | 0.28693 | 0.676 | 0.29544 |
| 22-Jul | 46 | Black Lake | 0.000 | 0.31611 | 0.098 | 0.30638 |
| | | Chignik Lake | 1.000 | 0.31611 | 0.902 | 0.30638 |

Table 21. Daily sockeye salmon escapement, catch by area, and total run adjusted to Chignik Lagoon date, 1991.

| Date | Escapement | Chignik Lagoon | Hook Bay/ Kujulik | Aniakchak | Eastern District | Cape Igvak | Western District | Perryville District | Southeast Mainland | Daily Total |
|------|------------|----------------|-------------------|-----------|------------------|------------|------------------|---------------------|--------------------|-------------|
| 6/ 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6/ 2 | 708 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 708 |
| 6/ 3 | 3,192 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,192 |
| 6/ 4 | 2,754 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,754 |
| 6/ 5 | 4,187 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,187 |
| 6/ 6 | 1,844 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,844 |
| 6/ 7 | 3,793 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,793 |
| 6/ 8 | 11,448 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11,448 |
| 6/ 9 | 47,647 | 2,338 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49,985 |
| 6/10 | 40,538 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40,538 |
| 6/11 | 14,118 | 65,494 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79,612 |
| 6/12 | 2,006 | 64,763 | 4,931 | 0 | 0 | 0 | 0 | 0 | 0 | 71,700 |
| 6/13 | 1,919 | 35,746 | 16,845 | 505 | 0 | 0 | 0 | 0 | 0 | 55,015 |
| 6/14 | 4,332 | 60,390 | 11,470 | 5,290 | 1,311 | 0 | 0 | 0 | 0 | 82,793 |
| 6/15 | 2,470 | 53,575 | 11,886 | 5,404 | 914 | 0 | 0 | 0 | 0 | 74,249 |
| 6/16 | 1,638 | 34,871 | 9,159 | 4,607 | 322 | 0 | 0 | 0 | 0 | 50,597 |
| 6/17 | 2,088 | 35,826 | 24,336 | 980 | 0 | 9,654 | 0 | 0 | 10,098 | 82,982 |
| 6/18 | 2,866 | 33,749 | 23,026 | 3,772 | 530 | 18,604 | 0 | 0 | 14,938 | 97,485 |
| 6/19 | 2,604 | 36,351 | 37,175 | 4,090 | 0 | 18,344 | 0 | 0 | 16,713 | 115,277 |
| 6/20 | 14,407 | 0 | 33,315 | 2,181 | 0 | 33,776 | 0 | 0 | 25,615 | 109,294 |
| 6/21 | 56,248 | 0 | 0 | 1,884 | 0 | 29,492 | 0 | 0 | 0 | 87,624 |
| 6/22 | 62,250 | 0 | 0 | 0 | 0 | 39,857 | 0 | 0 | 0 | 102,107 |
| 6/23 | 129,144 | 42,422 | 0 | 0 | 0 | 67,108 | 0 | 0 | 0 | 238,674 |
| 6/24 | 37,753 | 54,533 | 0 | 0 | 0 | 30,230 | 0 | 0 | 0 | 122,516 |
| 6/25 | 29,804 | 84,848 | 0 | 0 | 0 | 13,256 | 0 | 0 | 14,775 | 142,683 |
| 6/26 | 42,441 | 74,254 | 0 | 0 | 0 | 1,846 | 0 | 0 | 34,077 | 152,618 |
| 6/27 | 36,721 | 82,382 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 119,103 |
| 6/28 | 37,013 | 91,454 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 128,467 |
| 6/29 | 16,165 | 46,496 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62,661 |
| 6/30 | 22,610 | 58,787 | 0 | 0 | 0 | 0 | 0 | 0 | 17,026 | 98,423 |
| 7/ 1 | 12,330 | 51,466 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63,796 |
| 7/ 2 | 20,262 | 41,988 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62,250 |
| 7/ 3 | 11,005 | 55,176 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66,181 |
| 7/ 4 | 16,032 | 9,133 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25,165 |
| 7/ 5 | 4,096 | 49,674 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53,770 |
| 7/ 6 | 1,626 | 44,561 | 10,734 | 0 | 0 | 0 | 0 | 0 | 0 | 56,921 |
| 7/ 7 | 1,695 | 21,378 | 22,405 | 304 | 0 | 0 | 0 | 0 | 0 | 45,782 |
| 7/ 8 | 1,986 | 22,685 | 22,666 | 1,406 | 0 | 0 | 0 | 0 | 0 | 48,743 |
| 7/ 9 | 2,130 | 16,151 | 22,855 | 3,941 | 0 | 0 | 0 | 0 | 0 | 45,077 |
| 7/10 | 3,526 | 12,836 | 11,249 | 2,314 | 0 | 0 | 0 | 0 | 0 | 29,925 |

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Table 21. (page 2 of 3).

| Date | Escapement | Chignik Lagoon | Hook Bay/ Kujulik | Aniakchak | Eastern District | Cape Igvak | Western District | Perryville District | Southeast Mainland | Daily Total |
|------|------------|----------------|-------------------|-----------|------------------|------------|------------------|---------------------|--------------------|-------------|
| 7/11 | 1,307 | 15,181 | 10,239 | 3,614 | 0 | 0 | 0 | 0 | 0 | 30,341 |
| 7/12 | 1,923 | 14,130 | 10,445 | 3,332 | 0 | 0 | 863 | 0 | 0 | 30,693 |
| 7/13 | 2,261 | 12,311 | 8,422 | 5,411 | 0 | 0 | 2,091 | 142 | 0 | 30,638 |
| 7/14 | 7,467 | 0 | 5,934 | 2,994 | 0 | 0 | 1,815 | 0 | 0 | 18,210 |
| 7/15 | 22,828 | 378 | 0 | 929 | 0 | 396 | 0 | 0 | 18,114 | 42,645 |
| 7/16 | 17,001 | 0 | 0 | 0 | 0 | 7,455 | 0 | 0 | 0 | 24,456 |
| 7/17 | 24,448 | 1,267 | 0 | 0 | 0 | 7,560 | 0 | 0 | 0 | 33,275 |
| 7/18 | 15,191 | 0 | 0 | 0 | 0 | 3,218 | 0 | 0 | 0 | 18,409 |
| 7/19 | 16,702 | 2,376 | 0 | 0 | 0 | 4,369 | 0 | 0 | 0 | 23,447 |
| 7/20 | 13,814 | 0 | 0 | 0 | 0 | 3,166 | 0 | 0 | 474 | 17,454 |
| 7/21 | 24,006 | 0 | 0 | 0 | 0 | 106 | 0 | 0 | 884 | 24,996 |
| 7/22 | 12,796 | 593 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13,389 |
| 7/23 | 13,448 | 0 | 0 | 0 | 0 | 5,666 | 0 | 0 | 0 | 19,114 |
| 7/24 | 15,719 | 0 | 0 | 0 | 0 | 1,924 | 0 | 0 | 0 | 17,643 |
| 7/25 | 10,493 | 1,080 | 0 | 0 | 0 | 4,991 | 0 | 0 | 0 | 16,564 |
| 7/26 | 10,343 | 0 | 0 | 0 | 0 | 8,114 | 0 | 0 | 0 | 18,457 |
| 7/27 | 8,337 | 0 | 0 | 0 | 0 | 4,506 | 0 | 0 | 0 | 12,843 |
| 7/28 | 6,730 | 5,177 | 0 | 0 | 0 | 5,258 | 0 | 0 | 0 | 17,165 |
| 7/29 | 1,656 | 7,629 | 655 | 0 | 0 | 2,910 | 0 | 0 | 0 | 12,850 |
| 7/30 | 1,525 | 5,350 | 1,593 | 205 | 0 | 2,269 | 513 | 0 | 0 | 11,455 |
| 7/31 | 1,092 | 4,902 | 2,078 | 1,267 | 0 | 979 | 2,178 | 41 | 0 | 12,537 |
| 8/ 1 | 2,311 | 0 | 2,140 | 1,371 | 0 | 0 | 1,849 | 828 | 8,656 | 17,155 |
| 8/ 2 | 4,368 | 0 | 0 | 4 | 0 | 121 | 729 | 323 | 9,484 | 15,029 |
| 8/ 3 | 6,851 | 0 | 0 | 0 | 0 | 360 | 0 | 3,033 | 0 | 10,244 |
| 8/ 4 | 5,799 | 0 | 0 | 0 | 0 | 3,362 | 0 | 0 | 0 | 9,161 |
| 8/ 5 | 4,892 | 7,196 | 0 | 0 | 0 | 1,419 | 0 | 0 | 5,883 | 19,390 |
| 8/ 6 | 6,196 | 4,271 | 1,729 | 0 | 0 | 2,198 | 0 | 0 | 8,292 | 22,686 |
| 8/ 7 | 5,584 | 2,521 | 1,078 | 345 | 0 | 1,276 | 1,340 | 0 | 5,730 | 17,874 |
| 8/ 8 | 5,550 | 4,935 | 780 | 457 | 67 | 429 | 1,625 | 1,771 | 0 | 15,614 |
| 8/ 9 | 4,859 | 5,483 | 0 | 0 | 0 | 1,355 | 573 | 1,915 | 0 | 14,185 |
| 8/10 | 3,343 | 0 | 0 | 0 | 0 | 1,694 | 261 | 1,386 | 2,708 | 9,392 |
| 8/11 | 2,387 | 0 | 0 | 0 | 0 | 1,630 | 0 | 108 | 3,585 | 7,710 |
| 8/12 | 2,916 | 6,351 | 0 | 0 | 0 | 190 | 0 | 6 | 3,702 | 13,165 |
| 8/13 | 1,254 | 5,051 | 743 | 0 | 0 | 0 | 0 | 74 | 0 | 7,122 |
| 8/14 | 1,601 | 774 | 444 | 0 | 0 | 0 | 670 | 0 | 0 | 3,489 |
| 8/15 | 1,724 | 5,242 | 0 | 0 | 0 | 306 | 800 | 995 | 4,991 | 14,058 |
| 8/16 | 3,164 | 493 | 14 | 0 | 0 | 1,295 | 0 | 854 | 5,118 | 10,938 |
| 8/17 | 3,032 | 291 | 0 | 0 | 0 | 340 | 702 | 46 | 4,326 | 8,737 |
| 8/18 | 2,002 | 2,175 | 0 | 0 | 0 | 204 | 0 | 301 | 0 | 4,682 |
| 8/19 | 1,244 | 6,031 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 7,281 |
| 8/20 | 1,057 | 4,299 | 901 | 0 | 0 | 0 | 0 | 0 | 1,771 | 8,028 |
| 8/21 | 1,326 | 4,442 | 1,100 | 0 | 0 | 43 | 686 | 0 | 1,448 | 9,045 |

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Table 21. (page 3 of 3).

| Date | Escapement | Chignik Lagoon | Hook Bay/ Kujulik | Aniakchak | Eastern District | Cape Igvak | Western District | Perryville District | Southeast Mainland | Daily Total |
|-------|------------|----------------|-------------------|-----------|------------------|------------|------------------|---------------------|--------------------|-------------|
| 8/22 | 1,421 | 4,413 | 273 | 0 | 0 | 0 | 589 | 450 | 496 | 7,642 |
| 8/23 | 890 | 0 | 144 | 0 | 0 | 0 | 503 | 296 | 210 | 2,043 |
| 8/24 | 1,048 | 0 | 0 | 0 | 0 | 248 | 641 | 538 | 0 | 2,475 |
| 8/25 | 1,203 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 1,253 |
| 8/26 | 2,038 | 5,312 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7,350 |
| 8/27 | 2,083 | 2,117 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,200 |
| 8/28 | 1,306 | 5,633 | 0 | 0 | 0 | 0 | 470 | 0 | 0 | 7,409 |
| 8/29 | 872 | 4,447 | 0 | 0 | 0 | 0 | 601 | 0 | 0 | 5,920 |
| 8/30 | 694 | 0 | 458 | 0 | 0 | 0 | 189 | 0 | 0 | 1,341 |
| 8/31 | 906 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 923 |
| 9/ 1 | 922 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 922 |
| 9/ 2 | 602 | 1,465 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,067 |
| 9/ 3 | 676 | 2,029 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,705 |
| 9/ 4 | 813 | 1,939 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,752 |
| 9/ 5 | 1,317 | 2,380 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,697 |
| 9/ 6 | 1,407 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 852 | 2,259 |
| 9/ 7 | 845 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,473 | 2,318 |
| 9/ 8 | 588 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 676 | 1,264 |
| 9/ 9 | 449 | 3,292 | 0 | 0 | 0 | 0 | 0 | 0 | 186 | 3,927 |
| 9/10 | 610 | 2,982 | 78 | 0 | 0 | 0 | 0 | 0 | 462 | 4,132 |
| 9/11 | 599 | 4,586 | 300 | 0 | 0 | 0 | 0 | 0 | 740 | 6,225 |
| 9/12 | 405 | 4,953 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 5,376 |
| 9/13 | 439 | 3,919 | 180 | 0 | 0 | 0 | 61 | 0 | 0 | 4,599 |
| 9/14 | 546 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 486 | 1,032 |
| 9/15 | 857 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,822 | 2,679 |
| 9/16 | 944 | 513 | 0 | 0 | 0 | 0 | 0 | 0 | 443 | 1,900 |
| 9/17 | 550 | 1,835 | 0 | 0 | 0 | 0 | 0 | 0 | 658 | 3,043 |
| 9/18 | 394 | 854 | 0 | 0 | 0 | 0 | 0 | 0 | 281 | 1,529 |
| 9/19 | 293 | 5,156 | 317 | 0 | 0 | 0 | 0 | 0 | 0 | 5,766 |
| 9/20 | 409 | 6,389 | 242 | 0 | 0 | 0 | 0 | 0 | 0 | 7,040 |
| 9/21 | 391 | 0 | 122 | 0 | 0 | 0 | 0 | 0 | 0 | 513 |
| 9/22 | 271 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 630 | 901 |
| 9/23 | 287 | 164 | 0 | 0 | 0 | 0 | 0 | 0 | 500 | 951 |
| 9/24 | 365 | 2,203 | 0 | 0 | 0 | 0 | 0 | 0 | 544 | 3,112 |
| 9/25 | 560 | 1,845 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 2,447 |
| 9/26 | 631 | 4,685 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5,316 |
| 9/27 | 360 | 2,497 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,857 |
| 9/28 | 263 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 263 |
| 9/29 | 192 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 192 |
| 9/30 | 273 | 489 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 762 |
| 10/ 1 | 255 | 181 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 436 |
| 10/ 2 | 181 | 272 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 475 |
| 10/ 3 | 0 | 706 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 706 |
| Total | 1,040,098 | 1,490,512 | 312,479 | 56,607 | 3,144 | 341,530 | 19,766 | 13,157 | 228,931 | 3,506,224 |

Table 22. Daily and cumulative sockeye salmon catch and escapement, as determined by scale pattern analysis for the Black Lake stock, 1991.^a

| Date | Escapement Counts | Catch | Daily Total | Cumulative Catch and Escapement | Cumulative Percent |
|--------|----------------------|--------|----------------|---------------------------------------|-----------------------|
| 02-Jun | 708 | 0 | 708 | 708 | 0.0 |
| 03-Jun | 3,118 | 0 | 3,118 | 3,826 | 0.2 |
| 04-Jun | 2,628 | 0 | 2,628 | 6,454 | 0.3 |
| 05-Jun | 3,896 | 0 | 3,896 | 10,350 | 0.4 |
| 06-Jun | 1,674 | 0 | 1,674 | 12,024 | 0.5 |
| 07-Jun | 3,355 | 0 | 3,355 | 15,379 | 0.6 |
| 08-Jun | 9,864 | 0 | 9,864 | 25,243 | 1.1 |
| 09-Jun | 39,952 | 1,959 | 41,911 | 67,154 | 2.8 |
| 10-Jun | 33,901 | 0 | 33,901 | 101,055 | 4.3 |
| 11-Jun | 11,775 | 54,625 | 66,400 | 167,455 | 7.1 |
| 12-Jun | 1,667 | 57,967 | 59,634 | 227,089 | 9.6 |
| 13-Jun | 1,592 | 44,036 | 45,628 | 272,717 | 11.5 |
| 14-Jun | 3,583 | 64,889 | 68,472 | 341,189 | 14.4 |
| 15-Jun | 2,038 | 59,186 | 61,224 | 402,413 | 17.0 |
| 16-Jun | 1,347 | 40,248 | 41,595 | 444,008 | 18.7 |
| 17-Jun | 1,710 | 66,299 | 68,009 | 512,017 | 21.6 |
| 18-Jun | 2,347 | 77,490 | 79,837 | 591,854 | 24.9 |
| 19-Jun | 2,132 | 92,221 | 94,353 | 686,207 | 28.9 |
| 20-Jun | 11,787 | 77,631 | 89,418 | 775,625 | 32.7 |
| 21-Jun | 46,006 | 25,664 | 71,670 | 847,295 | 35.7 |
| 22-Jun | 50,911 | 32,596 | 83,507 | 930,802 | 39.2 |
| 23-Jun | 105,625 | 89,582 | 195,207 | 1,126,009 | 47.5 |
| 24-Jun | 30,885 | 69,341 | 100,226 | 1,226,235 | 51.7 |
| 25-Jun | 24,474 | 92,700 | 117,174 | 1,343,409 | 56.6 |
| 26-Jun | 36,799 | 95,531 | 132,330 | 1,475,739 | 62.2 |
| 27-Jun | 33,517 | 75,193 | 108,710 | 1,584,449 | 66.8 |
| 28-Jun | 33,739 | 83,362 | 117,101 | 1,701,550 | 71.7 |
| 29-Jun | 14,726 | 42,359 | 57,085 | 1,758,635 | 74.1 |
| 30-Jun | 20,605 | 69,088 | 89,693 | 1,848,328 | 77.9 |
| 01-Jul | 11,138 | 46,492 | 57,630 | 1,905,958 | 80.3 |
| 02-Jul | 18,182 | 37,680 | 55,862 | 1,961,820 | 82.7 |
| 03-Jul | 9,833 | 49,296 | 59,129 | 2,020,949 | 85.2 |
| 04-Jul | 14,292 | 8,141 | 22,433 | 2,043,382 | 86.1 |
| 05-Jul | 3,367 | 40,836 | 44,203 | 2,087,585 | 88.0 |
| 06-Jul | 1,214 | 41,297 | 42,511 | 2,130,096 | 89.8 |
| 07-Jul | 1,169 | 30,429 | 31,598 | 2,161,694 | 91.1 |
| 08-Jul | 1,255 | 29,519 | 30,774 | 2,192,468 | 92.4 |
| 09-Jul | 1,331 | 26,822 | 28,153 | 2,220,621 | 93.6 |
| 10-Jul | 2,159 | 16,166 | 18,325 | 2,238,946 | 94.4 |
| 11-Jul | 795 | 17,634 | 18,429 | 2,257,375 | 95.2 |

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Table 22. (page 2 of 2)

| Date | Escapement Counts | Catch | Daily Total | Cumulative Catch and Escapement | Cumulative Percent |
|--------|----------------------|-----------|----------------|---------------------------------------|-----------------------|
| 12-Jul | 1,130 | 16,913 | 18,043 | 2,275,418 | 95.9 |
| 13-Jul | 1,233 | 15,463 | 16,696 | 2,292,114 | 96.6 |
| 14-Jul | 3,682 | 5,297 | 8,979 | 2,301,093 | 97.0 |
| 15-Jul | 9,888 | 8,586 | 18,474 | 2,319,567 | 97.8 |
| 16-Jul | 6,962 | 3,051 | 10,013 | 2,329,580 | 98.2 |
| 17-Jul | 9,463 | 3,417 | 12,880 | 2,342,460 | 98.7 |
| 18-Jul | 4,848 | 1,026 | 5,874 | 2,348,334 | 99.0 |
| 19-Jul | 4,349 | 1,756 | 6,105 | 2,354,439 | 99.2 |
| 20-Jul | 3,270 | 862 | 4,132 | 2,358,571 | 99.4 |
| 21-Jul | 5,009 | 206 | 5,215 | 2,363,786 | 99.6 |
| 22-Jul | 2,255 | 104 | 2,359 | 2,366,145 | 99.7 |
| 23-Jul | 1,767 | 745 | 2,512 | 2,368,657 | 99.8 |
| 24-Jul | 1,371 | 167 | 1,538 | 2,370,195 | 99.9 |
| 25-Jul | 465 | 269 | 734 | 2,370,929 | 99.9 |
| 26-Jul | 367 | 288 | 655 | 2,371,584 | 100.0 |
| 27-Jul | 223 | 120 | 343 | 2,371,927 | 100.0 |
| 28-Jul | 119 | 186 | 305 | 2,372,232 | 100.0 |
| 29-Jul | 14 | 100 | 114 | 2,372,346 | 100.0 |
| | 657,511 | 1,714,835 | | 2,372,346 | |

^aCatch and escapement adjusted to Chignik Lagoon date.

Table 23. Daily and cumulative sockeye salmon catch and escapement, as determined by scale pattern analysis for the Chignik Lake stock, 1991.^a

| Date | Escapement Counts | Catch | Daily Total | Cumulative Catch and Escapement | Cumulative Percent |
|--------|----------------------|--------|----------------|---------------------------------------|-----------------------|
| 02-Jun | 74 | | 74 | 74 | 0.0 |
| 03-Jun | 126 | | 126 | 200 | 0.0 |
| 04-Jun | 291 | | 291 | 491 | 0.0 |
| 05-Jun | 170 | | 170 | 661 | 0.1 |
| 06-Jun | 438 | | 438 | 1,099 | 0.1 |
| 07-Jun | 1,584 | | 1,584 | 2,683 | 0.2 |
| 08-Jun | 7,695 | | 7,695 | 10,378 | 0.9 |
| 09-Jun | 6,637 | 379 | 7,016 | 17,394 | 1.5 |
| 10-Jun | 2,343 | 0 | 2,343 | 19,737 | 1.7 |
| 11-Jun | 339 | 10,869 | 11,208 | 30,945 | 2.7 |
| 12-Jun | 327 | 11,727 | 12,054 | 42,999 | 3.8 |
| 13-Jun | 749 | 9,060 | 9,809 | 52,808 | 4.7 |
| 14-Jun | 432 | 13,572 | 14,004 | 66,812 | 5.9 |
| 15-Jun | 291 | 12,593 | 12,884 | 79,696 | 7.0 |
| 16-Jun | 378 | 8,711 | 9,089 | 88,785 | 7.8 |
| 17-Jun | 519 | 14,595 | 15,114 | 103,899 | 9.2 |
| 18-Jun | 472 | 17,129 | 17,601 | 121,500 | 10.7 |
| 19-Jun | 2,620 | 20,452 | 23,072 | 144,572 | 12.8 |
| 20-Jun | 10,242 | 17,256 | 27,498 | 172,070 | 15.2 |
| 21-Jun | 11,339 | 5,712 | 17,051 | 189,121 | 16.7 |
| 22-Jun | 23,519 | 7,261 | 30,780 | 219,901 | 19.4 |
| 23-Jun | 6,868 | 19,948 | 26,816 | 246,717 | 21.8 |
| 24-Jun | 5,330 | 15,422 | 20,752 | 267,469 | 23.6 |
| 25-Jun | 5,642 | 20,179 | 25,821 | 293,290 | 25.9 |
| 26-Jun | 3,204 | 14,646 | 17,850 | 311,140 | 27.4 |
| 27-Jun | 3,274 | 7,189 | 10,463 | 321,603 | 28.4 |
| 28-Jun | 1,439 | 8,092 | 9,531 | 331,134 | 29.2 |
| 29-Jun | 2,005 | 4,137 | 6,142 | 337,276 | 29.7 |
| 30-Jun | 1,192 | 6,725 | 7,917 | 345,193 | 30.4 |
| 01-Jul | 2,080 | 4,974 | 7,054 | 352,247 | 31.1 |
| 02-Jul | 1,172 | 4,308 | 5,480 | 357,727 | 31.5 |
| 03-Jul | 1,740 | 5,880 | 7,620 | 365,347 | 32.2 |
| 04-Jul | 729 | 992 | 1,721 | 367,068 | 32.4 |
| 05-Jul | 412 | 8,838 | 9,250 | 376,318 | 33.2 |
| 06-Jul | 526 | 13,998 | 14,524 | 390,842 | 34.5 |
| 07-Jul | 731 | 13,658 | 14,389 | 405,231 | 35.7 |
| 08-Jul | 799 | 17,238 | 18,037 | 423,268 | 37.3 |
| 09-Jul | 1,367 | 16,125 | 17,492 | 440,760 | 38.9 |
| 10-Jul | 512 | 10,233 | 10,745 | 451,505 | 39.8 |
| 11-Jul | 793 | 11,400 | 12,193 | 463,698 | 40.9 |

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Table 23. (page 2 of 3)

| Date | Escapement Counts | Catch | Daily Total | Cumulative Catch and Escapement | Cumulative Percent |
|--------|----------------------|--------|----------------|---------------------------------------|-----------------------|
| 12-Jul | 1,028 | 11,857 | 12,885 | 476,583 | 42.0 |
| 13-Jul | 3,785 | 12,914 | 16,699 | 493,282 | 43.5 |
| 14-Jul | 12,940 | 5,446 | 18,386 | 511,668 | 45.1 |
| 15-Jul | 10,039 | 11,231 | 21,270 | 532,938 | 47.0 |
| 16-Jul | 14,985 | 4,404 | 19,389 | 552,327 | 48.7 |
| 17-Jul | 10,343 | 5,410 | 15,753 | 568,080 | 50.1 |
| 18-Jul | 12,353 | 2,192 | 14,545 | 582,625 | 51.4 |
| 19-Jul | 10,544 | 4,989 | 15,533 | 598,158 | 52.8 |
| 20-Jul | 18,997 | 2,778 | 21,775 | 619,933 | 54.7 |
| 21-Jul | 10,541 | 784 | 11,325 | 631,258 | 55.7 |
| 22-Jul | 11,681 | 489 | 12,170 | 643,428 | 56.7 |
| 23-Jul | 14,348 | 4,921 | 19,269 | 662,697 | 58.4 |
| 24-Jul | 10,028 | 1,757 | 11,785 | 674,482 | 59.5 |
| 25-Jul | 9,976 | 5,802 | 15,778 | 690,260 | 60.9 |
| 26-Jul | 8,114 | 7,826 | 15,940 | 706,200 | 62.3 |
| 27-Jul | 6,611 | 4,386 | 10,997 | 717,197 | 63.3 |
| 28-Jul | 1,642 | 10,249 | 11,891 | 729,088 | 64.3 |
| 29-Jul | 1,525 | 11,094 | 12,619 | 741,707 | 65.4 |
| 30-Jul | 1,092 | 9,930 | 11,022 | 752,729 | 66.4 |
| 31-Jul | 2,311 | 11,445 | 13,756 | 766,485 | 67.6 |
| 01-Aug | 4,368 | 14,844 | 19,212 | 785,697 | 69.3 |
| 02-Aug | 6,851 | 10,661 | 17,512 | 803,209 | 70.8 |
| 03-Aug | 5,799 | 3,393 | 9,192 | 812,401 | 71.6 |
| 04-Aug | 4,892 | 3,362 | 8,254 | 820,655 | 72.4 |
| 05-Aug | 6,196 | 14,498 | 20,694 | 841,349 | 74.2 |
| 06-Aug | 5,584 | 16,490 | 22,074 | 863,423 | 76.1 |
| 07-Aug | 5,550 | 12,290 | 17,840 | 881,263 | 77.7 |
| 08-Aug | 4,859 | 10,064 | 14,923 | 896,186 | 79.0 |
| 09-Aug | 3,343 | 9,326 | 12,669 | 908,855 | 80.2 |
| 10-Aug | 2,387 | 6,049 | 8,436 | 917,291 | 80.9 |
| 11-Aug | 2,916 | 5,323 | 8,239 | 925,530 | 81.6 |
| 12-Aug | 1,254 | 10,249 | 11,503 | 937,033 | 82.6 |
| 13-Aug | 1,601 | 5,868 | 7,469 | 944,502 | 83.3 |
| 14-Aug | 1,724 | 1,888 | 3,612 | 948,114 | 83.6 |
| 15-Aug | 3,164 | 12,334 | 15,498 | 963,612 | 85.0 |
| 16-Aug | 3,032 | 7,774 | 10,806 | 974,418 | 85.9 |
| 17-Aug | 2,002 | 5,705 | 7,707 | 982,125 | 86.6 |
| 18-Aug | 1,244 | 2,680 | 3,924 | 986,049 | 87.0 |
| 19-Aug | 1,057 | 6,037 | 7,094 | 993,143 | 87.6 |
| 20-Aug | 1,326 | 6,971 | 8,297 | 1,001,440 | 88.3 |
| 21-Aug | 1,421 | 7,719 | 9,140 | 1,010,580 | 89.1 |
| 22-Aug | 890 | 6,221 | 7,111 | 1,017,691 | 89.8 |

-Continued-

Table 23. (page 3 of 3)

| Date | Escapement Counts | Catch | Daily Total | Cumulative Catch and Escapement | Cumulative Percent |
|--------|----------------------|---------|----------------|---------------------------------------|-----------------------|
| 23-Aug | 1,048 | 1,153 | 2,201 | 1,019,892 | 89.9 |
| 24-Aug | 1,203 | 1,427 | 2,630 | 1,022,522 | 90.2 |
| 25-Aug | 2,038 | 50 | 2,088 | 1,024,610 | 90.4 |
| 26-Aug | 2,083 | 5,312 | 7,395 | 1,032,005 | 91.0 |
| 27-Aug | 1,306 | 2,117 | 3,423 | 1,035,428 | 91.3 |
| 28-Aug | 872 | 6,103 | 6,975 | 1,042,403 | 91.9 |
| 29-Aug | 694 | 5,048 | 5,742 | 1,048,145 | 92.4 |
| 30-Aug | 906 | 647 | 1,553 | 1,049,698 | 92.6 |
| 31-Aug | 922 | 17 | 939 | 1,050,637 | 92.7 |
| 01-Sep | 602 | 0 | 602 | 1,051,239 | 92.7 |
| 02-Sep | 676 | 1,465 | 2,141 | 1,053,380 | 92.9 |
| 03-Sep | 813 | 2,029 | 2,842 | 1,056,222 | 93.2 |
| 04-Sep | 1,317 | 1,939 | 3,256 | 1,059,478 | 93.4 |
| 05-Sep | 1,407 | 2,380 | 3,787 | 1,063,265 | 93.8 |
| 06-Sep | 845 | 852 | 1,697 | 1,064,962 | 93.9 |
| 07-Sep | 588 | 1,473 | 2,061 | 1,067,023 | 94.1 |
| 08-Sep | 449 | 676 | 1,125 | 1,068,148 | 94.2 |
| 09-Sep | 610 | 3,478 | 4,088 | 1,072,236 | 94.6 |
| 10-Sep | 599 | 3,522 | 4,121 | 1,076,357 | 94.9 |
| 11-Sep | 405 | 5,626 | 6,031 | 1,082,388 | 95.5 |
| 12-Sep | 439 | 4,971 | 5,410 | 1,087,798 | 95.9 |
| 13-Sep | 546 | 4,160 | 4,706 | 1,092,504 | 96.4 |
| 14-Sep | 857 | 486 | 1,343 | 1,093,847 | 96.5 |
| 15-Sep | 944 | 1,822 | 2,766 | 1,096,613 | 96.7 |
| 16-Sep | 550 | 956 | 1,506 | 1,098,119 | 96.8 |
| 17-Sep | 394 | 2,493 | 2,887 | 1,101,006 | 97.1 |
| 18-Sep | 293 | 1,135 | 1,428 | 1,102,434 | 97.2 |
| 19-Sep | 409 | 5,473 | 5,882 | 1,108,316 | 97.7 |
| 20-Sep | 391 | 6,631 | 7,022 | 1,115,338 | 98.4 |
| 21-Sep | 271 | 122 | 393 | 1,115,731 | 98.4 |
| 22-Sep | 287 | 630 | 917 | 1,116,648 | 98.5 |
| 23-Sep | 365 | 664 | 1,029 | 1,117,677 | 98.6 |
| 24-Sep | 560 | 2,747 | 3,307 | 1,120,984 | 98.9 |
| 25-Sep | 631 | 1,887 | 2,518 | 1,123,502 | 99.1 |
| 26-Sep | 360 | 4,685 | 5,045 | 1,128,547 | 99.5 |
| 27-Sep | 263 | 2,497 | 2,760 | 1,131,307 | 99.8 |
| 28-Sep | 192 | 0 | 192 | 1,131,499 | 99.8 |
| 29-Sep | 709 | 0 | 709 | 1,132,208 | 99.9 |
| 30-Sep | 0 | 1,670 | 1,670 | 1,133,878 | 100.0 |
| | 382,587 | 751,291 | | 1,133,878 | |

^aCatch and escapement adjusted to Chignik Lagoon date.

Table 24. Black Lake weekly sockeye salmon escapement, by age class, estimated by scale pattern analysis, 1991.

| Statistical Week | | Age Class | | | | | | | | | | | | Total |
|------------------|---------|-----------|-----|--------|-----|---------|--------|-------|--------|-----|-----|-----|-------|---------|
| | | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | Other | |
| 23 | Number | 0 | 0 | 431 | 0 | 20,863 | 51 | 204 | 3,643 | 51 | 0 | 0 | 0 | 25,243 |
| | Percent | 0.0 | 0.0 | 1.7 | 0.0 | 82.6 | 0.2 | 0.8 | 14.4 | 0.2 | 0.0 | 0.0 | 0.0 | |
| 24 | Number | 0 | 0 | 1,654 | 0 | 77,963 | 263 | 735 | 13,727 | 166 | 0 | 0 | 0 | 94,508 |
| | Percent | 0.0 | 0.0 | 1.8 | 0.0 | 82.5 | 0.3 | 0.8 | 14.5 | 0.2 | 0.0 | 0.0 | 0.0 | |
| 25 | Number | 0 | 0 | 3,565 | 0 | 98,099 | 1,163 | 1,263 | 12,025 | 0 | 0 | 125 | 0 | 116,240 |
| | Percent | 0.0 | 0.0 | 3.1 | 0.0 | 84.4 | 1.0 | 1.1 | 10.3 | 0.0 | 0.0 | 0.1 | 0.0 | |
| 26 | Number | 164 | 38 | 17,174 | 38 | 235,893 | 4,108 | 3,416 | 18,430 | 164 | 0 | 340 | 0 | 279,765 |
| | Percent | 0.1 | 0.0 | 6.1 | 0.0 | 84.3 | 1.5 | 1.2 | 6.6 | 0.1 | 0.0 | 0.1 | 0.0 | |
| 27 | Number | 0 | 75 | 10,922 | 75 | 55,528 | 3,903 | 649 | 7,323 | 0 | 5 | 151 | 0 | 78,631 |
| | Percent | 0.0 | 0.1 | 13.9 | 0.1 | 70.6 | 5.0 | 0.8 | 9.3 | 0.0 | 0.0 | 0.2 | 0.0 | |
| 28 | Number | 26 | 23 | 870 | 17 | 6,024 | 417 | 16 | 1,673 | 0 | 1 | 5 | 0 | 9,072 |
| | Percent | 0.3 | 0.3 | 9.6 | 0.2 | 66.4 | 4.6 | 0.2 | 18.4 | 0.0 | 0.0 | 0.1 | 0.0 | |
| 29 | Number | 205 | 39 | 4,300 | 83 | 26,920 | 5,520 | 114 | 4,761 | 0 | 317 | 197 | 6 | 42,462 |
| | Percent | 0.5 | 0.1 | 10.1 | 0.2 | 63.4 | 13.0 | 0.3 | 11.2 | 0.0 | 0.7 | 0.5 | 0.0 | |
| 30 | Number | 57 | 6 | 1,344 | 38 | 4,421 | 2,862 | 4 | 2,470 | 1 | 84 | 136 | 34 | 11,457 |
| | Percent | 0.5 | 0.1 | 11.7 | 0.3 | 38.6 | 25.0 | 0.0 | 21.6 | 0.0 | 0.7 | 1.2 | 0.3 | |
| 31 | Number | 0 | 0 | 12 | 0 | 47 | 65 | 0 | 0 | 0 | 3 | 6 | 0 | 133 |
| | Percent | 0.0 | 0.0 | 9.0 | 0.0 | 35.3 | 48.9 | 0.0 | 0.0 | 0.0 | 2.3 | 4.5 | 0.0 | |
| Total | Number | 453 | 182 | 40,330 | 252 | 526,331 | 18,402 | 6,406 | 64,158 | 382 | 411 | 962 | 40 | 657,511 |
| | Percent | 0.1 | 0.0 | 6.1 | 0.0 | 80.0 | 2.8 | 1.0 | 9.8 | 0.1 | 0.1 | 0.1 | 0.0 | |

Table 25. Black Lake weekly sockeye salmon catch, by age class, estimated by scale pattern analysis, 1991.

| Statistical Week | | Age Class | | | | | | | | | | | Total | |
|------------------|---------|-----------|-----|---------|-----|-----------|--------|--------|---------|-----|-----|-------|-------|-----------|
| | | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | | Other |
| 24 | Number | 0 | 0 | 5,170 | 0 | 233,514 | 1,400 | 1,956 | 40,344 | 278 | 0 | 0 | 0 | 282,662 |
| | Percent | 0.0 | 0.0 | 1.8 | 0.0 | 82.6 | 0.5 | 0.7 | 14.3 | 0.1 | 0.0 | 0.0 | 0.0 | |
| 25 | Number | 0 | 0 | 10,080 | 0 | 344,308 | 3,585 | 3,351 | 50,614 | 10 | 0 | 201 | 0 | 412,149 |
| | Percent | 0.0 | 0.0 | 2.4 | 0.0 | 83.5 | 0.9 | 0.8 | 12.3 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 26 | Number | 419 | 100 | 38,171 | 100 | 460,927 | 8,744 | 6,556 | 32,010 | 419 | 0 | 622 | 0 | 548,068 |
| | Percent | 0.1 | 0.0 | 7.0 | 0.0 | 84.1 | 1.6 | 1.2 | 5.8 | 0.1 | 0.0 | 0.1 | 0.0 | |
| 27 | Number | 0 | 252 | 35,300 | 252 | 211,020 | 12,656 | 2,063 | 30,657 | 0 | 127 | 503 | 0 | 292,830 |
| | Percent | 0.0 | 0.1 | 12.1 | 0.1 | 72.1 | 4.3 | 0.7 | 10.5 | 0.0 | 0.0 | 0.2 | 0.0 | |
| 28 | Number | 426 | 409 | 13,766 | 366 | 100,872 | 6,916 | 271 | 29,822 | 0 | 31 | 67 | 0 | 152,946 |
| | Percent | 0.3 | 0.3 | 9.0 | 0.2 | 66.0 | 4.5 | 0.2 | 19.5 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 29 | Number | 164 | 16 | 2,602 | 55 | 16,020 | 2,846 | 67 | 2,048 | 0 | 107 | 68 | 2 | 23,995 |
| | Percent | 0.7 | 0.1 | 10.8 | 0.2 | 66.8 | 11.9 | 0.3 | 8.5 | 0.0 | 0.4 | 0.3 | 0.0 | |
| 30 | Number | 6 | 3 | 231 | 3 | 693 | 622 | 0 | 290 | 0 | 20 | 28 | 3 | 1,899 |
| | Percent | 0.3 | 0.2 | 12.2 | 0.2 | 36.5 | 32.8 | 0.0 | 15.3 | 0.0 | 1.1 | 1.5 | 0.2 | |
| 31 | Number | 0 | 0 | 24 | 0 | 101 | 139 | 0 | 0 | 2 | 8 | 12 | 0 | 286 |
| | Percent | 0.0 | 0.0 | 8.4 | 0.0 | 35.3 | 48.6 | 0.0 | 0.0 | 0.7 | 2.8 | 4.2 | 0.0 | |
| Total | | 1,015 | 780 | 105,344 | 776 | 1,367,455 | 36,908 | 14,264 | 185,785 | 709 | 293 | 1,501 | 5 | 1,714,835 |
| | | 0.1 | 0.0 | 6.1 | 0.0 | 79.7 | 2.2 | 0.8 | 10.8 | 0.0 | 0.0 | 0.1 | 0.0 | |

Table 26. Chignik Lake weekly sockeye salmon escapement, by age class, estimated by scale pattern analysis, 1991.

| Statistical Week | | Age Class | | | | | | | | | | | Total |
|------------------|---------|-----------|-----|-------|-----|--------|--------|-----|--------|-----|-----|-----|--------|
| | | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | |
| 23 | Number | 0 | 0 | 166 | 0 | 8,843 | 19 | 78 | 1,253 | 19 | 0 | 0 | 10,378 |
| | Percent | 0.0 | 0.0 | 1.6 | 0.0 | 85.2 | 0.2 | 0.8 | 12.1 | 0.2 | 0.0 | 0.0 | |
| 24 | Number | 0 | 0 | 196 | 0 | 9,182 | 40 | 83 | 1,601 | 16 | 0 | 0 | 11,118 |
| | Percent | 0.0 | 0.0 | 1.8 | 0.0 | 82.6 | 0.4 | 0.7 | 14.4 | 0.1 | 0.0 | 0.0 | |
| 25 | Number | 0 | 0 | 2,592 | 0 | 31,882 | 821 | 937 | 12,755 | 0 | 0 | 102 | 49,089 |
| | Percent | 0.0 | 0.0 | 5.3 | 0.0 | 64.9 | 1.7 | 1.9 | 26.0 | 0.0 | 0.0 | 0.2 | |
| 26 | Number | 46 | 16 | 4,349 | 16 | 15,124 | 1,029 | 683 | 6,381 | 46 | 0 | 72 | 27,762 |
| | Percent | 0.2 | 0.1 | 15.7 | 0.1 | 54.5 | 3.7 | 2.5 | 23.0 | 0.2 | 0.0 | 0.3 | |
| 27 | Number | 1 | 8 | 1,449 | 8 | 4,153 | 515 | 83 | 1,618 | 0 | 3 | 13 | 7,851 |
| | Percent | 0.0 | 0.1 | 18.5 | 0.1 | 52.9 | 6.6 | 1.1 | 20.6 | 0.0 | 0.0 | 0.2 | |
| 28 | Number | 52 | 17 | 990 | 14 | 1,971 | 626 | 17 | 5,323 | 0 | 0 | 5 | 9,015 |
| | Percent | 0.6 | 0.2 | 11.0 | 0.2 | 21.9 | 6.9 | 0.2 | 59.0 | 0.0 | 0.0 | 0.1 | |
| 29 | Number | 288 | 45 | 6,736 | 164 | 9,174 | 10,346 | 147 | 62,238 | 0 | 552 | 451 | 90,201 |
| | Percent | 0.3 | 0.0 | 7.5 | 0.2 | 10.2 | 11.5 | 0.2 | 69.0 | 0.0 | 0.6 | 0.5 | |
| 30 | Number | 133 | 77 | 5,715 | 90 | 8,889 | 16,602 | 0 | 38,259 | 36 | 592 | 816 | 71,299 |
| | Percent | 0.2 | 0.1 | 8.0 | 0.1 | 12.5 | 23.3 | 0.0 | 53.7 | 0.1 | 0.8 | 1.1 | |
| 31 | Number | 47 | 48 | 1,138 | 357 | 1,638 | 7,830 | 0 | 11,362 | 84 | 487 | 597 | 23,588 |
| | Percent | 0.2 | 0.2 | 4.8 | 1.5 | 6.9 | 33.2 | 0.0 | 48.2 | 0.4 | 2.1 | 2.5 | |
| 32 | Number | 119 | 119 | 1,855 | 920 | 913 | 12,461 | 0 | 15,186 | 79 | 644 | 515 | 32,811 |
| | Percent | 0.4 | 0.4 | 5.7 | 2.8 | 2.8 | 38.0 | 0.0 | 46.3 | 0.2 | 2.0 | 1.6 | |

-Continued-

Table 26. (page 2 of 2)

| Statistical Week | | Age Class | | | | | | | | | | | | Total |
|------------------|---------|-----------|-----|--------|-------|--------|--------|-------|---------|-----|-------|-------|-------|---------|
| | | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | Other | |
| 33 | Number | 20 | 0 | 255 | 342 | 316 | 5,067 | 20 | 9,229 | 0 | 337 | 107 | 0 | 15,693 |
| | Percent | 0.1 | 0.0 | 1.6 | 2.2 | 2.0 | 32.3 | 0.1 | 58.8 | 0.0 | 2.1 | 0.7 | 0.0 | |
| 34 | Number | 29 | 0 | 133 | 312 | 297 | 2,130 | 23 | 5,076 | 6 | 167 | 16 | 0 | 8,189 |
| | Percent | 0.4 | 0.0 | 1.6 | 3.8 | 3.6 | 26.0 | 0.3 | 62.0 | 0.1 | 2.0 | 0.2 | 0.0 | |
| 35 | Number | 43 | 0 | 94 | 210 | 520 | 1,873 | 19 | 5,889 | 17 | 154 | 2 | 0 | 8,821 |
| | Percent | 0.5 | 0.0 | 1.1 | 2.4 | 5.9 | 21.2 | 0.2 | 66.8 | 0.2 | 1.7 | 0.0 | 0.0 | |
| 36 | Number | 31 | 0 | 62 | 138 | 386 | 1,286 | 13 | 4,214 | 13 | 105 | 0 | 0 | 6,248 |
| | Percent | 0.5 | 0.0 | 1.0 | 2.2 | 6.2 | 20.6 | 0.2 | 67.4 | 0.2 | 1.7 | 0.0 | 0.0 | |
| 37 | Number | 19 | 0 | 38 | 86 | 242 | 803 | 8 | 2,635 | 8 | 66 | 0 | 0 | 3,905 |
| | Percent | 0.5 | 0.0 | 1.0 | 2.2 | 6.2 | 20.6 | 0.2 | 67.5 | 0.2 | 1.7 | 0.0 | 0.0 | |
| 38 | Number | 16 | 0 | 32 | 72 | 201 | 669 | 8 | 2,190 | 8 | 56 | 0 | 0 | 3,252 |
| | Percent | 0.5 | 0.0 | 1.0 | 2.2 | 6.2 | 20.6 | 0.2 | 67.3 | 0.2 | 1.7 | 0.0 | 0.0 | |
| 39 | Number | 13 | 0 | 28 | 58 | 165 | 547 | 6 | 1,790 | 6 | 45 | 0 | 0 | 2,658 |
| | Percent | 0.5 | 0.0 | 1.1 | 2.2 | 6.2 | 20.6 | 0.2 | 67.3 | 0.2 | 1.7 | 0.0 | 0.0 | |
| 40 | Number | 4 | 0 | 7 | 16 | 44 | 146 | 1 | 478 | 1 | 12 | 0 | 0 | 709 |
| | Percent | 0.6 | 0.0 | 1.0 | 2.3 | 6.2 | 20.6 | 0.1 | 67.4 | 0.1 | 1.7 | 0.0 | 0.0 | |
| Total | Number | 861 | 330 | 25,835 | 2,803 | 93,940 | 62,810 | 2,126 | 187,477 | 339 | 3,220 | 2,696 | 150 | 382,587 |
| | Percent | 0.2 | 0.1 | 6.8 | 0.7 | 24.6 | 16.4 | 0.6 | 49.0 | 0.1 | 0.8 | 0.7 | 0.0 | |

Table 27. Chignik Lake weekly sockeye salmon catch, by age class, estimated by scale pattern analysis, 1991.

| Statistical Week | | Age Class | | | | | | | | | | | | Total |
|------------------|---------|-----------|-----|--------|-------|--------|--------|-------|--------|-----|-------|-------|-------|--------|
| | | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | Other | |
| 24 | Number | 0 | 0 | 1,141 | 0 | 46,480 | 313 | 428 | 9,778 | 60 | 0 | 0 | 0 | 58,200 |
| | Percent | 0.0 | 0.0 | 2.0 | 0.0 | 79.9 | 0.5 | 0.7 | 16.8 | 0.1 | 0.0 | 0.0 | 0.0 | |
| 25 | Number | 0 | 0 | 3,021 | 0 | 64,911 | 1,068 | 1,009 | 21,041 | 2 | 0 | 64 | 0 | 91,116 |
| | Percent | 0.0 | 0.0 | 3.3 | 0.0 | 71.2 | 1.2 | 1.1 | 23.1 | 0.0 | 0.0 | 0.1 | 0.0 | |
| 26 | Number | 121 | 23 | 11,477 | 23 | 51,477 | 2,637 | 2,187 | 21,341 | 121 | 0 | 206 | 0 | 89,613 |
| | Percent | 0.1 | 0.0 | 12.8 | 0.0 | 57.4 | 2.9 | 2.4 | 23.8 | 0.1 | 0.0 | 0.2 | 0.0 | |
| 27 | Number | 0 | 47 | 6,636 | 47 | 28,088 | 2,380 | 383 | 8,007 | 0 | 34 | 93 | 0 | 45,715 |
| | Percent | 0.0 | 0.1 | 14.5 | 0.1 | 61.4 | 5.2 | 0.8 | 17.5 | 0.0 | 0.1 | 0.2 | 0.0 | |
| 28 | Number | 337 | 264 | 9,532 | 204 | 39,959 | 4,946 | 169 | 37,943 | 0 | 13 | 58 | 0 | 93,425 |
| | Percent | 0.4 | 0.3 | 10.2 | 0.2 | 42.8 | 5.3 | 0.2 | 40.6 | 0.0 | 0.0 | 0.1 | 0.0 | |
| 29 | Number | 169 | 19 | 2,941 | 62 | 2,313 | 3,497 | 74 | 27,118 | 0 | 154 | 100 | 3 | 36,450 |
| | Percent | 0.5 | 0.1 | 8.1 | 0.2 | 6.3 | 9.6 | 0.2 | 74.4 | 0.0 | 0.4 | 0.3 | 0.0 | |
| 30 | Number | 30 | 34 | 2,003 | 20 | 2,913 | 6,293 | 1 | 14,121 | 13 | 228 | 289 | 20 | 25,965 |
| | Percent | 0.1 | 0.1 | 7.7 | 0.1 | 11.2 | 24.2 | 0.0 | 54.4 | 0.1 | 0.9 | 1.1 | 0.1 | |
| 31 | Number | 54 | 66 | 3,021 | 411 | 6,260 | 21,733 | 0 | 36,409 | 250 | 1,451 | 1,961 | 0 | 71,616 |
| | Percent | 0.1 | 0.1 | 4.2 | 0.6 | 8.7 | 30.3 | 0.0 | 50.8 | 0.3 | 2.0 | 2.7 | 0.0 | |
| 32 | Number | 278 | 278 | 4,314 | 2,137 | 2,240 | 27,356 | 0 | 32,663 | 195 | 1,409 | 1,209 | 0 | 72,079 |
| | Percent | 0.4 | 0.4 | 6.0 | 3.0 | 3.1 | 38.0 | 0.0 | 45.3 | 0.3 | 2.0 | 1.7 | 0.0 | |
| 33 | Number | 51 | 5 | 823 | 805 | 951 | 16,375 | 46 | 28,645 | 3 | 1,045 | 392 | 0 | 49,141 |
| | Percent | 0.1 | 0.0 | 1.7 | 1.6 | 1.9 | 33.3 | 0.1 | 58.3 | 0.0 | 2.1 | 0.8 | 0.0 | |
| 34 | Number | 107 | 0 | 557 | 1,324 | 993 | 8,768 | 89 | 19,598 | 12 | 678 | 82 | 0 | 32,208 |
| | Percent | 0.3 | 0.0 | 1.7 | 4.1 | 3.1 | 27.2 | 0.3 | 60.8 | 0.0 | 2.1 | 0.3 | 0.0 | |
| 35 | Number | 93 | 0 | 205 | 457 | 1,140 | 4,090 | 39 | 12,895 | 35 | 335 | 5 | 0 | 19,294 |
| | Percent | 0.5 | 0.0 | 1.1 | 2.4 | 5.9 | 21.2 | 0.2 | 66.8 | 0.2 | 1.7 | 0.0 | 0.0 | |

-Continued-

Table 27. (page 2 of 2)

| Statistical Week | | Age Class | | | | | | | | | | | Other | Total |
|---------------------|---------|-----------|-----|--------|-------|---------|---------|-------|---------|-----|-------|-------|-------|---------|
| | | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | | |
| 36 | Number | 50 | 0 | 102 | 223 | 629 | 2,088 | 21 | 6,833 | 21 | 171 | 0 | 0 | 10,138 |
| | Percent | 0.5 | 0.0 | 1.0 | 2.2 | 6.2 | 20.6 | 0.2 | 67.4 | 0.2 | 1.7 | 0.0 | 0.0 | |
| 37 | Number | 114 | 0 | 230 | 505 | 1,421 | 4,721 | 45 | 15,448 | 45 | 390 | 0 | 0 | 22,919 |
| | Percent | 0.5 | 0.0 | 1.0 | 2.2 | 6.2 | 20.6 | 0.2 | 67.4 | 0.2 | 1.7 | 0.0 | 0.0 | |
| 38 | Number | 93 | 0 | 186 | 410 | 1,155 | 3,838 | 37 | 12,560 | 37 | 316 | 0 | 0 | 18,632 |
| | Percent | 0.5 | 0.0 | 1.0 | 2.2 | 6.2 | 20.6 | 0.2 | 67.4 | 0.2 | 1.7 | 0.0 | 0.0 | |
| 39 | Number | 64 | 0 | 131 | 289 | 812 | 2,701 | 25 | 8,840 | 25 | 223 | 0 | 0 | 13,110 |
| | Percent | 0.5 | 0.0 | 1.0 | 2.2 | 6.2 | 20.6 | 0.2 | 67.4 | 0.2 | 1.7 | 0.0 | 0.0 | |
| 40 | Number | 8 | 0 | 17 | 37 | 104 | 344 | 3 | 1,126 | 3 | 28 | 0 | 0 | 1,670 |
| | Percent | 0.5 | 0.0 | 1.0 | 2.2 | 6.2 | 20.6 | 0.2 | 67.4 | 0.2 | 1.7 | 0.0 | 0.0 | |
| Total | Number | 1,569 | 736 | 46,337 | 6,954 | 251,846 | 113,148 | 4,556 | 314,366 | 822 | 6,475 | 4,459 | 23 | 751,291 |
| | Percent | 0.2 | 0.1 | 6.2 | 0.9 | 33.5 | 15.1 | 0.6 | 41.8 | 0.1 | 0.9 | 0.6 | 0.0 | |

Table 28. Total estimated escapement, commercial catch, and run by stock and age class for the Chignik sockeye run, estimated by scale pattern analysis, 1991.

| | Age Group | | | | | | | | | | | | |
|---------------------|-----------|-------|---------|--------|-----------|---------|--------|---------|-------|--------|-------|-------|-----------|
| | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | Other | Total |
| <u>Black Lake</u> | | | | | | | | | | | | | |
| Escapement | 452 | 181 | 40,272 | 251 | 525,758 | 18,352 | 6,401 | 64,052 | 382 | 410 | 960 | 40 | 657,511 |
| Catch | 1,015 | 780 | 105,344 | 776 | 1,367,455 | 36,908 | 14,264 | 185,785 | 709 | 293 | 1,501 | 5 | 1,714,835 |
| Run | 1,467 | 961 | 145,616 | 1,027 | 1,893,213 | 55,260 | 20,665 | 249,837 | 1,091 | 703 | 2,461 | 45 | 2,372,346 |
| Percent | 0.1 | 0.0 | 6.1 | 0.0 | 79.8 | 2.3 | 0.9 | 10.5 | 0.0 | 0.0 | 0.1 | 0.0 | |
| <u>Chignik Lake</u> | | | | | | | | | | | | | |
| Escapement | 861 | 330 | 25,835 | 2,803 | 93,940 | 62,810 | 2,126 | 187,477 | 339 | 3,220 | 2,696 | 150 | 382,587 |
| Catch | 1,569 | 736 | 46,337 | 6,954 | 251,846 | 113,148 | 4,556 | 314,366 | 822 | 6,475 | 4,459 | 23 | 751,291 |
| Run | 2,430 | 1,066 | 72,172 | 9,757 | 345,786 | 175,958 | 6,682 | 501,843 | 1,161 | 9,695 | 7,155 | 173 | 1,133,878 |
| Percent | 0.2 | 0.1 | 6.4 | 0.9 | 30.5 | 15.5 | 0.6 | 44.3 | 0.1 | 0.9 | 0.6 | 0.0 | |
| <u>Total Run</u> | | | | | | | | | | | | | |
| Escapement | 1,313 | 511 | 66,107 | 3,054 | 619,698 | 81,162 | 8,527 | 251,529 | 721 | 3,630 | 3,656 | 190 | 1,040,098 |
| Catch | 2,584 | 1,516 | 151,681 | 7,730 | 1,619,301 | 150,056 | 18,820 | 500,151 | 1,531 | 6,768 | 5,960 | 28 | 2,466,126 |
| Run | 3,897 | 2,027 | 217,788 | 10,784 | 2,238,999 | 231,218 | 27,347 | 751,680 | 2,252 | 10,398 | 9,616 | 218 | 3,506,224 |
| Percent | 0.1 | 0.1 | 6.2 | 0.3 | 63.9 | 6.6 | 0.8 | 21.4 | 0.1 | 0.3 | 0.3 | 0.0 | |

Table 29. Catch and escapement of Chignik Lakes system sockeye salmon for Black Lake, Chignik Lake, and combined total runs, 1954 - 1991.

| Year | Black Lake | | | Chignik Lake | | | Combined | | |
|------|------------|------------|-----------|--------------|------------|-----------|-----------|------------|-----------|
| | Catch | Escapement | Total | Catch | Escapement | Total | Catch | Escapement | Run |
| 1954 | 72,334 | 184,953 | 257,287 | 19,232 | 277,912 | 297,144 | 91,566 | 462,865 | 554,431 |
| 1955 | 179,539 | 256,757 | 436,296 | 168,987 | 201,409 | 370,396 | 348,526 | 458,166 | 806,692 |
| 1956 | 246,442 | 289,096 | 535,538 | 421,251 | 483,024 | 904,275 | 667,693 | 772,120 | 1,439,813 |
| 1957 | 77,423 | 192,479 | 269,902 | 224,757 | 328,779 | 553,536 | 302,180 | 521,258 | 823,438 |
| 1958 | 141,180 | 120,862 | 262,042 | 179,949 | 212,594 | 392,543 | 321,129 | 333,456 | 654,585 |
| 1959 | 165,000 | 112,226 | 277,226 | 251,547 | 308,645 | 560,192 | 416,547 | 420,871 | 837,418 |
| 1960 | 274,048 | 251,567 | 525,615 | 418,356 | 357,230 | 775,586 | 692,404 | 608,797 | 1,301,201 |
| 1961 | 53,852 | 140,714 | 194,566 | 278,609 | 254,970 | 533,579 | 332,461 | 395,684 | 728,145 |
| 1962 | 71,562 | 167,602 | 239,164 | 292,528 | 324,860 | 617,388 | 364,090 | 492,462 | 856,552 |
| 1963 | 80,258 | 332,536 | 412,794 | 323,080 | 200,314 | 523,394 | 403,338 | 532,850 | 936,188 |
| 1964 | 142,380 | 137,073 | 279,453 | 472,510 | 166,625 | 639,135 | 614,890 | 303,698 | 918,588 |
| 1965 | 497,018 | 307,192 | 804,210 | 169,576 | 163,151 | 332,727 | 666,594 | 470,343 | 1,136,937 |
| 1966 | 87,169 | 383,545 | 470,714 | 162,638 | 183,525 | 346,163 | 249,807 | 567,070 | 816,877 |
| 1967 | 154,134 | 328,000 | 482,134 | 350,901 | 189,000 | 539,901 | 505,035 | 517,000 | 1,022,035 |
| 1968 | 542,598 | 342,343 | 884,941 | 641,693 | 244,836 | 886,529 | 1,184,291 | 587,179 | 1,771,470 |
| 1969 | 263,170 | 366,589 | 629,759 | 235,960 | 132,055 | 368,015 | 499,130 | 498,644 | 997,774 |
| 1970 | 1,566,065 | 536,257 | 2,102,322 | 255,338 | 119,952 | 375,290 | 1,821,403 | 656,209 | 2,477,612 |
| 1971 | 555,832 | 671,668 | 1,227,500 | 764,300 | 232,501 | 996,801 | 1,320,132 | 904,169 | 2,224,301 |
| 1972 | 43,220 | 326,320 | 369,540 | 395,461 | 231,270 | 626,731 | 438,681 | 557,590 | 996,271 |
| 1973 | 569,854 | 533,047 | 1,102,901 | 395,862 | 247,144 | 643,006 | 965,716 | 780,191 | 1,745,907 |
| 1974 | 174,883 | 351,701 | 526,584 | 624,568 | 364,612 | 989,180 | 799,451 | 716,313 | 1,515,764 |
| 1975 | 4,019 | 308,914 | 312,933 | 421,414 | 314,084 | 735,498 | 425,433 | 622,998 | 1,048,431 |
| 1976 | 548,107 | 551,254 | 1,099,361 | 778,380 | 341,828 | 1,120,208 | 1,326,487 | 893,082 | 2,219,569 |
| 1977 | 439,693 | 482,247 | 921,940 | 1,696,767 | 463,561 | 2,160,328 | 2,136,460 | 945,808 | 3,082,268 |
| 1978 | 1,070,487 | 458,660 | 1,529,147 | 754,903 | 263,009 | 1,017,912 | 1,825,390 | 721,669 | 2,547,059 |
| 1979 | 207,122 | 385,694 | 592,816 | 944,964 | 317,889 | 1,262,853 | 1,152,086 | 703,583 | 1,855,669 |
| 1980 | 170,629 | 311,332 | 481,961 | 778,014 | 279,729 | 1,057,743 | 948,643 | 591,061 | 1,539,704 |
| 1981 | 779,755 | 438,540 | 1,218,295 | 1,509,574 | 301,092 | 1,810,666 | 2,289,329 | 739,632 | 3,028,961 |
| 1982 | 1,325,041 | 616,117 | 1,941,158 | 450,778 | 305,193 | 755,971 | 1,775,819 | 921,310 | 2,697,129 |
| 1983 | 977,548 | 426,177 | 1,403,725 | 1,467,060 | 441,561 | 1,908,621 | 2,444,608 | 867,738 | 3,312,346 |
| 1984 | 3,245,482 | 597,712 | 3,843,194 | 352,988 | 268,496 | 621,484 | 3,598,470 | 866,208 | 4,464,678 |
| 1985 | 650,340 | 377,516 | 1,027,856 | 490,151 | 369,262 | 859,413 | 1,140,491 | 746,778 | 1,887,269 |
| 1986 | 1,371,935 | 566,088 | 1,938,023 | 609,081 | 207,231 | 816,312 | 1,981,016 | 773,319 | 2,754,335 |

-Continued-

Table 29. (page 2 of 2).

| Year | Black Lake | | | | Chignik Lake | | | Combined | | |
|-------|------------|------------|-----------|--|--------------|------------|-----------|------------|------------|-----------|
| | Catch | Escapement | Total | | Catch | Escapement | Total | Catch | Escapement | Run |
| 1987 | 1,949,867 | 589,291 | 2,539,158 | | 481,376 | 214,452 | 695,828 | 12,431,243 | 803,743 | 3,234,986 |
| 1988 | 272,553 | 420,577 | 693,131 | | 630,070 | 255,180 | 885,250 | 902,623 | 675,757 | 1,578,380 |
| 1989 | 234,839 | 384,004 | 618,843 | | 1,063,015 | 557,171 | 1,620,186 | 1,297,854 | 941,175 | 2,239,029 |
| 1990 | 587,818 | 434,543 | 1,022,361 | | 1,855,182 | 335,867 | 2,191,049 | 12,443,000 | 770,410 | 3,213,410 |
| 1991 | 1,714,835 | 657,511 | 2,372,346 | | 751,291 | 382,587 | 1,133,878 | 12,466,126 | 1,040,098 | 3,506,224 |
| AVG. | | | | | | | | | | |
| 82-91 | 1,233,026 | 506,954 | 1,739,980 | | 815,099 | 333,700 | 1,148,799 | 12,048,125 | 840,654 | 2,888,779 |

Table 30. Peak aerial survey estimates of sockeye salmon in the Black Lake and Black River tributaries, 1960-1991.^a

| Year | Black Lake | | | | | | | Black River | | | |
|------|------------|--------|-----------|------------|--------------|--------|---------|-------------|-----------|-----------|--------|
| | Fan | Milk | Boulevard | Alec River | Conglomerate | Broad | Total | Bearskin | West Fork | Chiaktuak | Total |
| 1960 | 38,500 | 8,000 | 40,000 | 30,000 | 3,000 | 30,000 | 149,500 | 11,600 | 23,000 | 19,000 | 53,600 |
| 1961 | 27,000 | 5,000 | 28,700 | 25,000 | 800 | 17,000 | 103,500 | 2,500 | 17,100 | 20,700 | 40,300 |
| 1962 | 18,000 | 7,000 | 13,000 | 60,000 | 200 | 15,000 | 113,200 | 3,000 | 13,000 | 24,000 | 40,000 |
| 1963 | 39,000 | - | 36,000 | 85,000 | 1,000 | 61,000 | 222,000 | 900 | 5,000 | 9,000 | 14,900 |
| 1964 | 19,500 | 3,050 | 23,850 | 17,900 | 9,300 | 9,500 | 83,100 | 500 | 4,500 | 7,000 | 12,000 |
| 1967 | 20,000 | 1,000 | 9,000 | 156,000 | 10,000 | 10,000 | 206,000 | 10,000 | 25,000 | 31,000 | 66,000 |
| 1968 | 32,000 | 2,400 | 20,000 | 60,000 | 2,000 | 4,100 | 120,500 | 1,200 | 10,500 | 10,000 | 21,700 |
| 1969 | 103,000 | 2,100 | 33,000 | 50,000 | 4,000 | 5,000 | 197,100 | 50 | 800 | 1,500 | 2,350 |
| 1970 | 146,000 | 9,000 | 55,500 | 198,000 | 5,000 | - | 413,500 | 450 | 4,000 | 4,000 | 8,450 |
| 1971 | 105,000 | 14,000 | 85,000 | 158,000 | 0 | - | 362,000 | 3,500 | 5,500 | 47,000 | 56,000 |
| 1972 | 18,000 | 3,500 | 19,000 | 74,000 | 400 | - | 114,900 | 1,400 | 4,300 | 23,000 | 28,700 |
| 1973 | 115,000 | 4,000 | 76,000 | 74,000 | 5,000 | - | 274,000 | 13 | 4,100 | 1,500 | 5,613 |
| 1974 | 90,000 | 5,000 | 50,000 | 93,000 | 5,000 | - | 243,000 | 450 | 8,000 | 7,000 | 15,450 |
| 1975 | 40,000 | 4,500 | 25,000 | 87,000 | 0 | - | 156,500 | 65 | 2,500 | 2,500 | 5,065 |
| 1976 | 78,000 | 8,900 | 100,000 | 119,000 | 2,000 | - | 307,900 | 2,650 | 23,700 | 7,700 | 34,050 |
| 1977 | 88,000 | 20,000 | 127,000 | 133,000 | 1,000 | - | 369,000 | 200 | 13,600 | 6,900 | 20,700 |
| 1978 | 114,000 | 3,300 | 74,000 | 83,300 | 500 | - | 275,100 | 410 | 9,600 | 8,500 | 18,510 |
| 1979 | 37,000 | 11,800 | 32,000 | 105,100 | 400 | 26,100 | 212,400 | 918 | 7,610 | 29,000 | 37,528 |
| 1980 | 127,000 | 16,000 | 75,000 | 70,500 | 1,500 | 68,000 | 358,000 | 3,600 | 33,000 | 40,400 | 77,000 |
| 1981 | 93,000 | 4,700 | 59,000 | 76,500 | 20,000 | 27,000 | 280,200 | 950 | 1,500 | 18,700 | 21,150 |
| 1982 | 50,000 | 5,500 | 60,000 | 43,000 | 20,000 | 32,000 | 210,500 | 1,066 | 10,791 | 5,000 | 16,857 |
| 1983 | - | - | - | - | - | - | - | - | - | 6,000 | 6,000 |
| 1984 | 50,000 | 22,200 | 70,000 | 30,500 | 31,000 | 36,000 | 239,700 | - | - | 8,200 | 8,200 |
| 1985 | 28,000 | 5,500 | 36,000 | 65,000 | 5,500 | 17,000 | 157,000 | 350 | 450 | 1,200 | 2,000 |
| 1986 | 60,000 | 15,300 | 47,000 | 76,000 | 39,000 | 27,000 | 264,300 | - | - | 8,300 | 8,300 |
| 1987 | 52,000 | 12,200 | 133,000 | 88,400 | 45,900 | 32,500 | 364,000 | - | - | 1,000 | 1,000 |
| 1988 | 54,000 | 71,000 | 83,700 | 106,500 | 2,300 | 26,500 | 344,000 | - | - | 4,600 | 4,600 |
| 1989 | 19,300 | 21,000 | 64,000 | 133,000 | 1,000 | 7,500 | 245,800 | - | - | 2,100 | 2,100 |
| 1990 | 32,600 | 7,400 | 35,900 | 49,800 | 2,200 | 18,000 | 145,900 | 300 | 0 | 50 | 350 |
| 1991 | 14,600 | 19,500 | 48,000 | - | 2,000 | 13,000 | 97,100 | - | - | - | - |

^aDashes represent no surveys taken or survey results not adequate to make stream estimate.

Table 31. Chignik Bay District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement ^b | Run | Year | Catch | Escapement | Run |
|------|-------|-------------------------|-------|------|-------|------------|-------|
| 1962 | 36.7 | 30.0 | 66.7 | 1977 | 60.9 | 3.0 | 63.9 |
| 1963 | 63.7 | 20.7 | 84.4 | 1978 | 137.1 | 10.7 | 147.8 |
| 1964 | 123.6 | 20.0 | 143.6 | 1979 | 312.6 | 1.2 | 313.8 |
| 1965 | 31.5 | 11.0 | 42.5 | 1980 | 180.6 | 3.0 | 183.6 |
| 1966 | 18.3 | 71.3 | 89.6 | 1981 | 121.4 | 1.4 | 122.8 |
| 1967 | 27.4 | 5.7 | 33.1 | 1982 | 83.0 | 2.4 | 85.4 |
| 1968 | 230.2 | 81.4 | 311.6 | 1983 | 27.3 | 1.0 | 28.3 |
| 1969 | 29.5 | 11.7 | 41.2 | 1984 | 165.2 | 123.2 | 288.4 |
| 1970 | 46.3 | 43.6 | 89.9 | 1985 | 16.0 | 0.0 | 16.0 |
| 1971 | 65.3 | 5.5 | 70.8 | 1986 | 191.3 | 0.0 | 191.3 |
| 1972 | 31.6 | 5.8 | 37.4 | 1987 | 13.9 | 0.0 | 13.9 |
| 1973 | 22.7 | 2.2 | 24.9 | 1988 | 119.8 | 22.4 | 142.2 |
| 1974 | 33.8 | 4.0 | 37.8 | 1989 | 27.7 | 13.5 | 41.2 |
| 1975 | 27.4 | 1.2 | 28.6 | 1990 | 94.5 | 6.0 | 100.5 |
| 1976 | 104.3 | 12.3 | 116.6 | 1991 | 76.2 | 12.2 | 88.4 |

^bChignik Bay District escapements are not completely monitored.

Table 32. Central District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|-------|------------|-------|------|-------|------------|-------|
| 1962 | 84.3 | 83.9 | 168.2 | 1977 | 120.0 | 199.9 | 319.9 |
| 1963 | 121.3 | 92.6 | 213.9 | 1978 | 61.3 | 101.2 | 162.5 |
| 1964 | 71.9 | 131.1 | 203.0 | 1979 | 277.3 | 297.0 | 574.3 |
| 1965 | 69.5 | 65.8 | 135.3 | 1980 | 96.9 | 99.4 | 196.3 |
| 1966 | 17.4 | 62.6 | 80.0 | 1981 | 255.1 | 76.5 | 331.6 |
| 1967 | 26.0 | 18.5 | 44.5 | 1982 | 80.6 | 26.1 | 106.7 |
| 1968 | 45.4 | 66.1 | 111.5 | 1983 | 7.8 | 11.0 | 18.8 |
| 1969 | 1.4 | 69.6 | 71.0 | 1984 | 48.6 | 94.0 | 142.6 |
| 1970 | 28.1 | 60.7 | 88.8 | 1985 | 19.6 | 7.4 | 27.0 |
| 1971 | 20.5 | 74.8 | 95.3 | 1986 | 44.1 | 121.9 | 166.0 |
| 1972 | 0.8 | 3.1 | 3.9 | 1987 | 7.8 | 65.7 | 73.5 |
| 1973 | 2.8 | 50.2 | 53.0 | 1988 | 318.4 | 216.4 | 534.8 |
| 1974 | 21.7 | 9.8 | 31.5 | 1989 | 0.0 | 215.0 | 215.0 |
| 1975 | 31.4 | 26.4 | 57.8 | 1990 | 233.7 | 131.9 | 365.6 |
| 1976 | 16.4 | 66.0 | 82.4 | 1991 | 174.0 | 201.1 | 375.1 |

^aPost 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

Table 33. Eastern District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|---------|------------|---------|------|---------|------------|---------|
| 1962 | 1,109.9 | 401.7 | 1,511.6 | 1977 | 0.2 | 76.0 | 76.2 |
| 1963 | 26.9 | 126.2 | 153.1 | 1978 | 86.7 | 309.3 | 396.0 |
| 1964 | 1,251.5 | 605.7 | 1,857.2 | 1979 | 271.3 | 194.3 | 465.6 |
| 1965 | 25.7 | 64.8 | 90.5 | 1980 | 514.8 | 425.5 | 940.3 |
| 1966 | 386.2 | 302.2 | 688.4 | 1981 | 128.2 | 154.7 | 282.9 |
| 1967 | 22.6 | 56.1 | 78.7 | 1982 | 89.1 | 301.5 | 390.6 |
| 1968 | 523.4 | 390.3 | 913.7 | 1983 | 7.8 | 46.3 | 54.1 |
| 1969 | 1.7 | 46.0 | 47.7 | 1984 | 57.7 | 486.5 | 544.2 |
| 1970 | 399.3 | 201.7 | 601.0 | 1985 | 6.9 | 212.1 | 219.0 |
| 1971 | 29.0 | 23.0 | 52.0 | 1986 | 49.6 | 580.7 | 630.3 |
| 1972 | 13.0 | 15.9 | 28.9 | 1987 | 2.1 | 215.6 | 217.7 |
| 1973 | 0.0 | 12.8 | 12.8 | 1988 | 1,006.4 | 1,005.4 | 2,011.8 |
| 1974 | 1.1 | 76.2 | 77.3 | 1989 | 0.0 | 881.0 | 881.0 |
| 1975 | 0.0 | 23.5 | 23.5 | 1990 | 40.6 | 811.4 | 852.0 |
| 1976 | 28.8 | 228.8 | 257.6 | 1991 | 28.0 | 125.0 | 153.0 |

Table 34. Western District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|-------|------------|-------|------|---------|------------|---------|
| 1962 | 81.0 | 242.0 | 323.0 | 1977 | 379.0 | 355.5 | 734.5 |
| 1963 | 516.9 | 305.0 | 821.9 | 1978 | 419.3 | 333.4 | 752.7 |
| 1964 | 112.9 | 165.0 | 277.9 | 1979 | 746.0 | 185.0 | 931.0 |
| 1965 | 345.6 | 152.0 | 497.6 | 1980 | 215.6 | 139.5 | 355.1 |
| 1966 | 173.2 | 179.3 | 352.5 | 1981 | 433.6 | 249.3 | 682.9 |
| 1967 | 27.1 | 104.4 | 131.5 | 1982 | 602.4 | 45.9 | 648.3 |
| 1968 | 295.6 | 151.3 | 446.9 | 1983 | 164.3 | 36.0 | 200.3 |
| 1969 | 485.0 | 422.0 | 907.0 | 1984 | 173.8 | 188.0 | 361.8 |
| 1970 | 442.7 | 202.0 | 644.7 | 1985 | 89.3 | 67.5 | 156.8 |
| 1971 | 285.4 | 268.8 | 554.2 | 1986 | 200.8 | 43.8 | 244.6 |
| 1972 | 14.9 | 8.6 | 23.5 | 1987 | 187.7 | 38.3 | 226.0 |
| 1973 | 0.0 | 62.4 | 62.4 | 1988 | 1,141.4 | 232.4 | 1,373.8 |
| 1974 | 13.3 | 77.4 | 90.7 | 1989 | 0.0 | 57.9 | 57.9 |
| 1975 | 7.4 | 141.7 | 149.1 | 1990 | 135.8 | 44.3 | 180.1 |
| 1976 | 134.8 | 114.2 | 249.0 | 1991 | 419.3 | 96.8 | 516.1 |

^aPost 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988)

Table 35. Perryville District pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|---------|------------|---------|------|-------|------------|-------|
| 1962 | 207.4 | 155.5 | 362.9 | 1977 | 44.6 | 115.4 | 160.0 |
| 1963 | 933.6 | 162.0 | 1,095.6 | 1978 | 280.7 | 157.5 | 438.2 |
| 1964 | 122.6 | 72.0 | 194.6 | 1979 | 269.4 | 181.3 | 450.7 |
| 1965 | 644.8 | 82.0 | 726.8 | 1980 | 107.9 | 74.8 | 182.7 |
| 1966 | 88.2 | 90.0 | 178.2 | 1981 | 224.3 | 116.0 | 340.3 |
| 1967 | 5.2 | 155.3 | 160.5 | 1982 | 18.3 | 13.4 | 31.7 |
| 1968 | 196.1 | 128.7 | 324.8 | 1983 | 113.9 | 64.5 | 178.4 |
| 1969 | 1,262.2 | 218.6 | 1,480.8 | 1984 | 0.8 | 109.8 | 110.6 |
| 1970 | 371.4 | 72.6 | 444.0 | 1985 | 43.2 | 235.2 | 278.4 |
| 1971 | 212.1 | 45.0 | 257.1 | 1986 | 161.3 | 180.5 | 341.8 |
| 1972 | 12.0 | 7.8 | 19.8 | 1987 | 35.4 | 65.7 | 101.1 |
| 1973 | 0.0 | 31.5 | 31.5 | 1988 | 411.2 | 181.3 | 592.5 |
| 1974 | 0.0 | 60.2 | 60.2 | 1989 | 0.0 | 267.4 | 267.4 |
| 1975 | 0.0 | 45.3 | 45.3 | 1990 | 45.4 | 88.4 | 133.8 |
| 1976 | 104.7 | 89.3 | 194.0 | 1991 | 471.9 | 343.5 | 815.4 |

Table 36. Total Chignik Management Area pink salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|---------|------------|---------|------|---------|------------|---------|
| 1962 | 1,519.3 | 913.1 | 2,432.4 | 1977 | 604.7 | 749.8 | 1,354.5 |
| 1963 | 1,662.4 | 706.5 | 2,368.9 | 1978 | 985.1 | 912.1 | 1,897.2 |
| 1964 | 1,682.5 | 993.8 | 2,676.3 | 1979 | 1,876.6 | 858.8 | 2,735.4 |
| 1965 | 1,117.1 | 375.6 | 1,492.7 | 1980 | 1,115.8 | 742.2 | 1,858.0 |
| 1966 | 683.3 | 705.4 | 1,388.7 | 1981 | 1,162.6 | 597.9 | 1,760.5 |
| 1967 | 108.3 | 340.0 | 448.3 | 1982 | 873.4 | 389.3 | 1,262.7 |
| 1968 | 1,290.7 | 817.8 | 2,108.5 | 1983 | 321.1 | 158.8 | 479.9 |
| 1969 | 1,779.8 | 767.9 | 2,547.7 | 1984 | 446.1 | 1,001.5 | 1,447.6 |
| 1970 | 1,287.8 | 580.6 | 1,868.4 | 1985 | 175.0 | 522.2 | 697.2 |
| 1971 | 612.3 | 417.1 | 1,029.4 | 1986 | 647.1 | 926.9 | 1574.0 |
| 1972 | 72.3 | 41.2 | 113.5 | 1987 | 246.8 | 385.3 | 632.1 |
| 1973 | 25.5 | 159.1 | 184.6 | 1988 | 2,997.2 | 1,657.9 | 4,655.1 |
| 1974 | 69.9 | 227.6 | 297.5 | 1989 | 27.7 | 1,434.8 | 1,462.5 |
| 1975 | 66.2 | 238.1 | 304.3 | 1990 | 550.0 | 1,082.0 | 1,632.0 |
| 1976 | 389.0 | 510.6 | 899.6 | 1991 | 1,169.3 | 778.5 | 1,947.8 |

^aPost 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

Table 37. Chignik Bay District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement ^b | Run | Year | Catch | Escapement | Run |
|------|-------|-------------------------|------|------|-------|------------|------|
| 1962 | 5.2 | 6.7 | 11.9 | 1977 | 8.6 | 2.0 | 10.6 |
| 1963 | 5.3 | 0.8 | 6.1 | 1978 | 15.0 | 2.1 | 17.1 |
| 1964 | 8.5 | 2.5 | 11.0 | 1979 | 31.3 | 1.6 | 32.9 |
| 1965 | 1.2 | 3.0 | 4.2 | 1980 | 27.2 | 0.3 | 27.5 |
| 1966 | 6.6 | 4.5 | 11.1 | 1981 | 38.1 | 0.5 | 38.6 |
| 1967 | 5.9 | 4.0 | 9.9 | 1982 | 16.0 | 1.4 | 17.4 |
| 1968 | 5.4 | 1.0 | 6.4 | 1983 | 16.7 | 0.1 | 16.8 |
| 1969 | 2.9 | 1.5 | 4.4 | 1984 | 8.2 | 0.3 | 8.5 |
| 1970 | 1.7 | 21.0 | 22.7 | 1985 | 5.4 | 0.0 | 5.4 |
| 1971 | 19.4 | 7.1 | 26.5 | 1986 | 18.2 | 0.0 | 18.2 |
| 1972 | 18.2 | 3.3 | 21.5 | 1987 | 5.2 | 0.1 | 5.3 |
| 1973 | 7.3 | 0.7 | 8.0 | 1988 | 7.0 | 15.3 | 22.3 |
| 1974 | 17.5 | 2.1 | 19.6 | 1989 | 15.9 | 4.2 | 20.1 |
| 1975 | 21.2 | 2.1 | 23.3 | 1990 | 11.5 | 1.5 | 13.0 |
| 1976 | 18.2 | 2.4 | 20.6 | 1991 | 17.9 | 0.0 | 17.9 |

^bChignik Bay District escapements are not completely monitored.

Table 38. Central District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|-------|------------|-------|------|-------|------------|-------|
| 1962 | 132.0 | 40.4 | 172.4 | 1977 | 8.9 | 9.3 | 18.2 |
| 1963 | 23.1 | 34.0 | 57.1 | 1978 | 10.3 | 13.8 | 24.1 |
| 1964 | 50.3 | 24.2 | 74.5 | 1979 | 11.2 | 44.8 | 56.0 |
| 1965 | 37.8 | 19.2 | 57.0 | 1980 | 94.1 | 34.2 | 128.3 |
| 1966 | 20.9 | 10.0 | 30.9 | 1981 | 175.0 | 26.1 | 201.1 |
| 1967 | 9.9 | 17.2 | 27.1 | 1982 | 33.7 | 49.4 | 83.1 |
| 1968 | 4.2 | 14.5 | 18.7 | 1983 | 9.8 | 17.0 | 26.8 |
| 1969 | 3.2 | 6.5 | 9.7 | 1984 | 8.3 | 35.4 | 43.7 |
| 1970 | 28.6 | 23.4 | 52.0 | 1985 | 6.2 | 9.6 | 15.8 |
| 1971 | 13.8 | 29.1 | 42.9 | 1986 | 29.5 | 31.0 | 60.5 |
| 1972 | 1.5 | 14.2 | 15.7 | 1987 | 9.4 | 17.5 | 26.9 |
| 1973 | 1.4 | 12.2 | 13.6 | 1988 | 39.3 | 55.8 | 95.1 |
| 1974 | 13.9 | 18.1 | 32.0 | 1989 | 0.0 | 34.7 | 34.7 |
| 1975 | 3.2 | 18.8 | 22.0 | 1990 | 113.7 | 28.0 | 141.7 |
| 1976 | 3.4 | 17.8 | 21.2 | 1991 | 51.4 | 18.0 | 69.4 |

^apost 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

Table 39. Eastern District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|-------|------------|-------|------|-------|------------|-------|
| 1962 | 74.7 | 79.6 | 154.3 | 1977 | 1.5 | 54.5 | 56.0 |
| 1963 | 20.5 | 55.2 | 75.7 | 1978 | 17.4 | 55.8 | 73.2 |
| 1964 | 242.7 | 165.4 | 408.1 | 1979 | 32.6 | 79.5 | 112.1 |
| 1965 | 32.4 | 58.0 | 90.4 | 1980 | 56.8 | 107.0 | 163.8 |
| 1966 | 130.1 | 58.0 | 188.1 | 1981 | 94.4 | 126.0 | 220.4 |
| 1967 | 24.4 | 89.8 | 114.2 | 1982 | 64.5 | 145.4 | 209.9 |
| 1968 | 110.1 | 63.0 | 173.1 | 1983 | 8.2 | 50.2 | 58.4 |
| 1969 | 3.7 | 66.5 | 70.2 | 1984 | 21.1 | 214.7 | 235.8 |
| 1970 | 268.5 | 126.0 | 394.5 | 1985 | 1.0 | 4.9 | 5.9 |
| 1971 | 102.3 | 219.2 | 321.5 | 1986 | 17.9 | 8.5 | 26.4 |
| 1972 | 27.8 | 107.4 | 135.2 | 1987 | 8.9 | 38.3 | 47.2 |
| 1973 | 0.0 | 59.1 | 59.1 | 1988 | 77.5 | 221.9 | 99.4 |
| 1974 | 0.4 | 76.3 | 76.7 | 1989 | 0.0 | 74.3 | 74.3 |
| 1975 | 0.0 | 41.3 | 41.3 | 1990 | 27.5 | 139.7 | 167.2 |
| 1976 | 10.0 | 122.3 | 132.3 | 1991 | 4.9 | 70.4 | 75.3 |

Table 40. Western District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|-------|------------|-------|------|-------|------------|-------|
| 1962 | 134.4 | 83.1 | 217.5 | 1977 | 88.0 | 70.4 | 158.4 |
| 1963 | 44.7 | 10.0 | 54.7 | 1978 | 45.9 | 27.3 | 73.2 |
| 1964 | 21.2 | 37.0 | 58.2 | 1979 | 83.2 | 42.5 | 125.7 |
| 1965 | 36.4 | 25.0 | 61.4 | 1980 | 92.0 | 56.5 | 148.5 |
| 1966 | 73.8 | 12.0 | 85.8 | 1981 | 221.6 | 70.3 | 291.9 |
| 1967 | 33.6 | 24.0 | 57.6 | 1982 | 253.3 | 35.4 | 288.7 |
| 1968 | 90.1 | 9.6 | 99.7 | 1983 | 101.9 | 20.1 | 122.0 |
| 1969 | 36.8 | 27.6 | 64.4 | 1984 | 25.3 | 73.8 | 99.1 |
| 1970 | 139.6 | 49.7 | 189.3 | 1985 | 12.4 | 34.6 | 47.0 |
| 1971 | 177.5 | 184.1 | 361.6 | 1986 | 74.1 | 5.3 | 79.4 |
| 1972 | 18.5 | 59.0 | 77.5 | 1987 | 86.9 | 19.7 | 106.6 |
| 1973 | 0.0 | 35.6 | 35.6 | 1988 | 102.1 | 27.4 | 129.5 |
| 1974 | 3.2 | 39.4 | 42.6 | 1989 | 0.0 | 7.4 | 7.4 |
| 1975 | 0.8 | 43.4 | 44.2 | 1990 | 91.6 | 28.8 | 120.4 |
| 1976 | 33.0 | 55.0 | 88.0 | 1991 | 98.6 | 38.1 | 136.7 |

^aPost 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett).

Table 41. Perryville District chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|-------|------------|------|------|-------|------------|-------|
| 1962 | 17.9 | 10.5 | 28.4 | 1977 | 3.4 | 15.4 | 18.8 |
| 1963 | 19.1 | 7.0 | 26.1 | 1978 | 32.1 | 5.3 | 37.4 |
| 1964 | 10.6 | 26.0 | 36.6 | 1979 | 26.1 | 12.8 | 38.9 |
| 1965 | 12.8 | 7.0 | 19.8 | 1980 | 41.3 | 29.1 | 70.4 |
| 1966 | 7.9 | 20.4 | 28.3 | 1981 | 51.3 | 19.3 | 70.6 |
| 1967 | 1.7 | 5.7 | 7.4 | 1982 | 22.6 | 23.6 | 46.2 |
| 1968 | 14.0 | 1.8 | 15.8 | 1983 | 22.6 | 8.2 | 30.8 |
| 1969 | 21.1 | 1.0 | 22.1 | 1984 | 0.5 | 46.0 | 46.5 |
| 1970 | 26.3 | 13.0 | 39.3 | 1985 | 1.1 | 12.9 | 14.0 |
| 1971 | 40.9 | 30.0 | 70.9 | 1986 | 37.0 | 7.7 | 44.7 |
| 1972 | 12.3 | 11.5 | 23.8 | 1987 | 16.9 | 9.8 | 26.7 |
| 1973 | 0.0 | 9.3 | 9.3 | 1988 | 41.2 | 41.4 | 82.6 |
| 1974 | 0.0 | 12.5 | 12.5 | 1989 | 0.0 | 15.9 | 15.9 |
| 1975 | 0.0 | 20.5 | 20.5 | 1990 | 25.7 | 55.8 | 81.5 |
| 1976 | 15.6 | 8.9 | 24.5 | 1991 | 88.6 | 343.2 | 431.8 |

Table 42. Total Chignik Management Area chum salmon catch, escapement, and run numbers, in thousands of fish, 1962-1991.^a

| Year | Catch | Escapement | Run | Year | Catch | Escapement | Run |
|------|-------|------------|-------|------|-------|------------|-------|
| 1962 | 364.2 | 220.3 | 584.5 | 1977 | 110.4 | 151.6 | 262.0 |
| 1963 | 112.7 | 107.0 | 219.7 | 1978 | 120.7 | 104.3 | 225.0 |
| 1964 | 333.3 | 255.1 | 588.4 | 1979 | 184.4 | 181.2 | 365.6 |
| 1965 | 120.6 | 112.2 | 232.8 | 1980 | 311.4 | 227.1 | 538.5 |
| 1966 | 239.3 | 104.9 | 344.2 | 1981 | 580.4 | 242.2 | 822.6 |
| 1967 | 75.5 | 140.7 | 216.2 | 1982 | 390.1 | 255.2 | 645.3 |
| 1968 | 223.8 | 89.9 | 313.7 | 1983 | 159.2 | 95.6 | 254.8 |
| 1969 | 67.7 | 103.1 | 170.8 | 1984 | 63.4 | 370.2 | 433.6 |
| 1970 | 464.7 | 233.1 | 697.8 | 1985 | 26.1 | 62.0 | 88.1 |
| 1971 | 353.9 | 469.5 | 823.4 | 1986 | 176.7 | 52.5 | 229.2 |
| 1972 | 78.3 | 195.4 | 273.7 | 1987 | 127.3 | 85.4 | 212.7 |
| 1973 | 8.7 | 116.9 | 125.6 | 1988 | 267.1 | 361.7 | 628.8 |
| 1974 | 35.0 | 148.4 | 183.4 | 1989 | 1.6 | 136.4 | 138.0 |
| 1975 | 25.2 | 126.1 | 151.3 | 1990 | 270.0 | 253.8 | 523.8 |
| 1976 | 80.2 | 206.4 | 286.6 | 1991 | 261.4 | 469.8 | 731.2 |

^aPost 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

Table 43. Pink salmon return per spawner in the Central and Eastern Districts, 1962-1991.^a

| Even Year Cycle | | | | Odd Year Cycle | | | |
|-----------------|-----------------|--------------------|-----------------|----------------|-----------------|--------------------|-----------------|
| Brood Year | Pink Escapement | Return 2-yrs Later | Return/ Spawner | Brood Year | Pink Escapement | Return 2-yrs Later | Return/ Spawner |
| 1962 | 485,600 | 2,060,200 | 4.2 | 1963 | 218,800 | 225,800 | 1.0 |
| 1964 | 736,800 | 768,400 | 1.0 | 1965 | 130,600 | 123,200 | 0.9 |
| 1966 | 364,800 | 1,025,200 | 2.8 | 1967 | 74,600 | 118,700 | 1.6 |
| 1968 | 456,400 | 689,800 | 1.5 | 1969 | 115,600 | 147,300 | 1.3 |
| 1970 | 262,400 | 32,800 | 0.1 | 1971 | 97,800 | 65,800 | 0.7 |
| 1972 | 19,000 | 108,800 | 5.7 | 1973 | 63,000 | 81,300 | 1.3 |
| 1974 | 86,000 | 340,000 | 4.0 | 1975 | 49,900 | 396,100 | 7.9 |
| 1976 | 294,800 | 586,500 | 2.0 | 1977 | 275,900 | 1,039,800 | 3.8 |
| 1978 | 439,300 | 1,136,600 | 2.6 | 1979 | 491,300 | 737,300 | 1.5 |
| 1980 | 524,900 | 497,300 | 1.0 | 1981 | 232,700 | 115,500 | 0.5 |
| 1982 | 327,700 | 686,900 | 2.1 | 1983 | 58,400 | 262,000 | 4.4 |
| 1984 | 580,600 | 796,400 | 1.4 | 1985 | 219,500 | 291,200 | 1.3 |
| 1986 | 702,600 | 2,546,500 | 3.6 | 1987 | 281,300 | 1,096,000 | 3.9 |
| 1988 | 1,221,800 | 1,217,600 | 1.0 | 1989 | 1,096,000 | 527,996 | .5 |
| 1990 | 943,300 | | | 1991 | 326,050 | | |

Table 44. Pink salmon return per spawner in the Western and Perryville Districts, 1962-1991.^a

| Even Year Cycle | | | | Odd Year Cycle | | | |
|-----------------|-----------------|--------------------|-----------------|----------------|-----------------|--------------------|-----------------|
| Brood Year | Pink Escapement | Return 2-yrs Later | Return/ Spawner | Brood Year | Pink Escapement | Return 2-yrs Later | Return/ Spawner |
| 1962 | 397,500 | 472,500 | 1.2 | 1963 | 467,000 | 1,225,400 | 2.6 |
| 1964 | 237,000 | 530,700 | 2.2 | 1965 | 234,000 | 292,000 | 1.3 |
| 1966 | 269,300 | 771,700 | 2.9 | 1967 | 259,700 | 2,387,800 | 9.2 |
| 1968 | 280,000 | 1,088,700 | 3.9 | 1969 | 640,600 | 811,300 | 1.3 |
| 1970 | 274,600 | 43,300 | 0.2 | 1971 | 313,000 | 93,900 | 0.3 |
| 1972 | 16,400 | 150,900 | 9.2 | 1973 | 93,900 | 194,400 | 2.1 |
| 1974 | 137,600 | 443,000 | 3.2 | 1975 | 187,000 | 894,500 | 4.8 |
| 1976 | 203,500 | 1,188,000 | 5.8 | 1977 | 470,900 | 1,381,700 | 2.9 |
| 1978 | 492,000 | 537,800 | 1.1 | 1979 | 366,300 | 1,023,300 | 2.8 |
| 1980 | 214,300 | 680,071 | 3.2 | 1981 | 365,400 | 378,700 | 1.0 |
| 1982 | 59,300 | 472,461 | 8.0 | 1983 | 100,500 | 435,100 | 4.3 |
| 1984 | 297,800 | 586,413 | 2.0 | 1985 | 302,600 | 327,000 | 1.1 |
| 1986 | 224,300 | 1,966,300 | 8.8 | 1987 | 104,000 | 325,300 | 3.1 |
| 1988 | 413,400 | 313,900 | 0.8 | 1989 | 325,300 | 1,331,422 | 4.1 |
| 1990 | 132,700 | | | 1991 | 440,283 | | |

^aPost 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

Table 45. Chum salmon return per spawner in the Central and Eastern Districts, 1962-1991.^a

| Brood Year | Chum Escapement | Return 4-yrs Later | Return/ Spawner | Brood Year | Chum Escapement | Return 4-yrs Later | Return/ Spawner |
|---------------|--------------------|--------------------------|--------------------|---------------|--------------------|--------------------------|--------------------|
| 1962 | 120,000 | 219,000 | 1.8 | 1977 | 63,800 | 460,000 | 7.2 |
| 1963 | 89,200 | 141,300 | 1.6 | 1978 | 69,600 | 293,000 | 4.2 |
| 1964 | 189,600 | 191,800 | 1.0 | 1979 | 124,300 | 85,200 | 0.7 |
| 1965 | 77,200 | 79,900 | 1.0 | 1980 | 141,200 | 279,500 | 2.0 |
| 1966 | 68,000 | 149,400 | 2.2 | 1981 | 152,600 | 21,700 | 0.1 |
| 1967 | 107,000 | 364,400 | 3.4 | 1982 | 194,800 | 86,800 | 0.5 |
| 1968 | 77,500 | 150,900 | 2.0 | 1983 | 67,200 | 74,100 | 1.1 |
| 1969 | 73,000 | 72,700 | 1.0 | 1984 | 250,100 | 394,500 | 1.6 |
| 1970 | 149,400 | 108,700 | 0.3 | 1985 | 14,500 | 109,000 | 7.5 |
| 1971 | 248,300 | 63,300 | 0.3 | 1986 | 39,500 | 308,861 | 7.8 |
| 1972 | 121,600 | 153,500 | 1.3 | 1987 | 55,800 | 144,820 | 2.6 |
| 1973 | 71,300 | 74,200 | 1.0 | 1988 | 277,700 | | |
| 1974 | 94,400 | 100,600 | 1.1 | 1989 | 109,000 | | |
| 1975 | 60,000 | 168,100 | 2.8 | 1990 | 167,657 | | |
| 1976 | 140,100 | 292,100 | 2.1 | 1991 | 88,466 | | |

Table 46. Chum salmon return per spawner in the Western and Perryville Districts, 1962-1991.^a

| Brood Year | Chum Escapement | Return 4-yrs Later | Return/ Spawner | Brood Year | Chum Escapement | Return 4-yrs Later | Return/ Spawner |
|---------------|--------------------|--------------------------|--------------------|---------------|--------------------|--------------------------|--------------------|
| 1962 | 93,600 | 114,100 | 1.2 | 1977 | 85,800 | 362,400 | 4.2 |
| 1963 | 17,000 | 65,000 | 3.8 | 1978 | 38,800 | 334,800 | 8.6 |
| 1964 | 63,000 | 115,500 | 1.8 | 1979 | 55,300 | 153,000 | 2.8 |
| 1965 | 32,000 | 86,500 | 2.7 | 1980 | 85,600 | 145,700 | 1.7 |
| 1966 | 32,400 | 228,600 | 7.1 | 1981 | 89,600 | 61,100 | 0.7 |
| 1967 | 29,700 | 432,500 | 14.6 | 1982 | 58,900 | 124,100 | 2.1 |
| 1968 | 11,400 | 101,300 | 8.9 | 1983 | 28,400 | 133,300 | 4.7 |
| 1969 | 28,600 | 44,900 | 1.6 | 1984 | 119,800 | 212,100 | 1.8 |
| 1970 | 62,700 | 55,100 | 0.9 | 1985 | 47,500 | 23,300 | 0.5 |
| 1971 | 214,100 | 64,700 | 0.3 | 1986 | 13,000 | 201,900 | 15.5 |
| 1972 | 70,500 | 112,500 | 1.6 | 1987 | 29,500 | 568,532 | 19.3 |
| 1973 | 44,900 | 177,200 | 4.0 | 1988 | 68,800 | | |
| 1974 | 51,900 | 116,600 | 2.3 | 1989 | 23,300 | | |
| 1975 | 63,900 | 116,600 | 2.3 | 1990 | 84,600 | | |
| 1976 | 63,900 | 218,900 | 3.4 | 1991 | 381,335 | | |

^aPost 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

Table 47. Chignik Management Area pink, chum, and coho surveys, 1991.^a

| Stream | Date MM-DD | Observer | Visibility Str Mou Bay | -----Fish in Stream----- | | | | Build Up Fish | | Remarks |
|---------------|---------------|-----------|-----------------------------|--------------------------|------|------|------|---------------|-------|------------------|
| | | | | Reds | Coho | Pink | Chum | Mouth | Bay | |
| Jack Cr | | | | | | | | | | |
| 271-100 | 8-01 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - | - |
| 271-100 | 8-17 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | - |
| Lake Bay | | | | | | | | | | |
| 271-100B | 8-17 | A. Quimby | G G G | 0 | 0 | 2600 | 0 | - | 8000P | - |
| Mud Bay | | | | | | | | | | |
| 271-102C | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - | Large schools of |
| 271-102C | 8-17 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 800R | - | Dollys in lake |
| Alfred Creek | | | | | | | | | | |
| 271-104 | 8- 1 | A. Quimby | E E E | 0 | 0 | 1900 | 0 | - | - | - |
| 271-104 | 8-17 | A. Quimby | G G G | 0 | 0 | 7400 | 0 | - | - | - |
| Chignik Bay | | | | | | | | | | |
| 271-105 | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - | - |
| 271-105 | 8-17 | A. Quimby | P P P | 0 | 0 | 0 | 0 | - | - | Silty |
| Through Creek | | | | | | | | | | |
| 271-106 | 8- 1 | A. Quimby | E E E | 0 | 0 | 200 | 0 | - | - | - |
| 271-106 | 8-17 | A. Quimby | P P P | 0 | 0 | 0 | 0 | - | - | Silty |
| Chignik Bay | | | | | | | | | | |
| 271-201 | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - | - |
| 271-201 | 8-17 | A. Quimby | P P P | 0 | 0 | 0 | 0 | - | - | Silty |
| Chignik Bay | | | | | | | | | | |
| 271-202A | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 0 | 200P | - | - |
| 271-202A | 8-17 | A. Quimby | P P P | 0 | 0 | 0 | 0 | - | - | Silty |
| Neketa Creek | | | | | | | | | | |
| 271-202B | 7-28 | A. Quimby | G G G | 0 | 0 | 950 | 0 | 1000P | - | - |
| 271-202B | 8- 1 | A. Quimby | E E E | 0 | 0 | 2000 | 0 | - | - | - |
| 271-202B | 8-17 | A. Quimby | P P P | 0 | 0 | 0 | 0 | - | - | Silty |

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Table 47. (page 2 of 12)

| Stream | Date MM-DD | Observer | Visibility | | | -----Fish in Stream----- | | | | Build Up Fish | | Remarks |
|-----------------|---------------|-----------|------------|-----|-----|--------------------------|------|-------|------|---------------|--------|------------------|
| | | | Str | Mou | Bay | Reds | Coho | Pink | Chum | Mouth | Bay | |
| Thompson Valley | | | | | | | | | | | | |
| 272-204 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | - |
| 272-204 | 8-17 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | Silty |
| McKinsey Valley | | | | | | | | | | | | |
| 272-205 | 7-28 | A. Quimby | G | G | G | 0 | 0 | 150 | 0 | 100P | - | - |
| 272-205 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | - |
| 272-205 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 1200 | 0 | - | - | - |
| Hook Creek | | | | | | | | | | | | |
| 272-302 | 7-28 | A. Quimby | G | G | G | 0 | 0 | 1900 | 0 | - | - | - |
| 272-302 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 1800 | 0 | - | - | - |
| 272-302 | 8- 7 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 900P | - | No stream survey |
| 272-302 | 8-17 | A. Quimby | p | P | P | 0 | 0 | 0 | 0 | - | - | Silty |
| 272-302 | 8-25 | A. Quimby | G | G | G | 0 | 0 | 15600 | 0 | - | - | - |
| Kumliun Creek | | | | | | | | | | | | |
| 272-501 | 7-26 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 500P | - | - |
| 272-501 | 7-28 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 500P | 500P | - |
| 272-501 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 11100 | 0 | 1500P | 1500P | - |
| 272-501 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 36900 | 0 | - | - | - |
| 272-501 | 8-25 | A. Quimby | G | G | G | 0 | 0 | 67300 | 0 | - | 250P | - |
| Cape Kumliun | | | | | | | | | | | | |
| 272-502A | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 200Ch | - | - |
| 272-502A | 8-25 | A. Quimby | G | G | G | 0 | 0 | 0 | 2600 | - | - | - |
| Kujulik Bay | | | | | | | | | | | | |
| 272-504 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | - |
| 272-504 | 8- 7 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | Fog |
| 272-504 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | - | - |
| Bear Creek | | | | | | | | | | | | |
| 272-505 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | 2000Ch | - |
| 272-505 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | 2000Ch | - |
| 272-505 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | 2000Ch | - |

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Table 47. (page 3 of 12)

| Stream | Date MM-DD | Observer | Visibility | | | -----Fish in Stream----- | | | | Build Up Fish | | Remarks |
|-------------|---------------|-----------|------------|-----|-----|--------------------------|------|------|------|---------------|--------|-------------------|
| | | | Str | Mou | Bay | Reds | Coho | Pink | Chum | Mouth | Bay | |
| Bear Creek | | | | | | | | | | | | |
| 272-505 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 200 | 700P | - | Jumpers |
| 272-505 | 8- 7 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | Fog |
| 272-505 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 900 | - | - | - |
| Kujulik Bay | | | | | | | | | | | | |
| 272-506 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | 5000Ch | - |
| 272-506 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | Jumpers; no count |
| 272-506 | 8- 7 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 400Ch | - | No str. survey |
| 272-506 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 700 | - | - | - |
| Kujulik Bay | | | | | | | | | | | | |
| 272-507 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 250 | - | - | - |
| 272-507 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | - |
| 272-507 | 8- 7 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 1000Ch | - | No stream survey |
| 272-507 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 200 | - | - | - |
| Kujulik Bay | | | | | | | | | | | | |
| 272-508 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | 100P | - | - |
| 272-508 | 8- 7 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 600Ch | - | No stream survey |
| 272-508 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 200 | - | - | - |
| Rudy Creek | | | | | | | | | | | | |
| 272-509 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 50 | - | - | Jumpers |
| 272-509 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | 400Ch | - | - |
| 272-509 | 8- 7 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 1000Ch | - | No stream survey |
| 272-509 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 7400 | - | - | - |
| Kujulik Bay | | | | | | | | | | | | |
| 272-510 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 150 | - | - | Jumpers |
| 272-510 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | - |
| 272-510 | 8- 7 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 400Ch | - | No stream survey |
| 272-510 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 4100 | - | - | - |
| Kujulik Bay | | | | | | | | | | | | |
| 272-511A | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | - |
| 272-511A | 8- 7 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | Fog |
| 272-511A | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 3900 | - | - | - |

-Continued-

Table 47. (page 4 of 12)

| Stream | Date MM-DD | Observer | Visibility Str Mou Bay | -----Fish in Stream----- | | | | Build Up Fish | | Remarks |
|------------------|---------------|-----------|---------------------------|--------------------------|------|-------|-------|---------------|-----|-----------------------|
| | | | | Reds | Coho | Pink | Chum | Mouth | Bay | |
| Kujulik Bay | | | | | | | | | | |
| 272-511B | 8- 7 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 1500Ch | - | No stream survey |
| Kujulik Bay | | | | | | | | | | |
| 272-512 | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 0 | 300Ch | - | - |
| 272-512 | 8- 7 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 3000Ch | - | No stream survey |
| 272-512 | 8-17 | A. Quimby | G G G | 0 | 0 | 0 | 200 | - | - | - |
| North Fork River | | | | | | | | | | |
| 272-514 | 7-20 | A. Quimby | P P P | 0 | 0 | 0 | 0 | - | - | Jumpers |
| 272-514 | 7-28 | A. Quimby | G G G | 0 | 0 | 0 | 500 | 6000Ch | - | - |
| 272-514 | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 2900 | 3000Ch | - | Left-hand trib. dry |
| 272-514 | 8- 7 | A. Quimby | P P P | 0 | 0 | 0 | 0 | - | - | - |
| 272-514 | 8-17 | A. Quimby | G G G | 0 | 0 | 0 | 2100 | - | - | - |
| Cape Kumlik | | | | | | | | | | |
| 272-516 | 7-20 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | - |
| 272-516 | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 0 | 2100Ch | - | - |
| 272-516 | 8- 7 | A. Quimby | E E E | 0 | 0 | 0 | 5000 | - | - | - |
| 272-516 | 8-17 | A. Quimby | G G G | 0 | 0 | 0 | 17800 | - | - | - |
| 272-516 | 8-25 | A. Quimby | G G G | 0 | 0 | 44700 | 0 | - | - | Windy |
| Wolverine Creek | | | | | | | | | | |
| 272-602 | 7-20 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | One jumper |
| 272-602 | 8- 1 | A. Quimby | E E E | 0 | 0 | 400 | 0 | - | - | - |
| 272-602 | 8- 7 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - | 20,000 chum in lagoon |
| 272-602 | 8-17 | A. Quimby | G G G | 0 | 0 | 2100 | 0 | - | - | Jumper @ mouth, windy |
| 272-602 | 8-25 | A. Quimby | G G G | 0 | 0 | 32700 | 0 | - | - | Windy, jumper @ mouth |
| Village Creek | | | | | | | | | | |
| 272-603 | 7-20 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | One jumper |
| 272-603 | 8- 7 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - | 20,000 chum in lagoon |
| Bear Creek | | | | | | | | | | |
| 272-604 | 7-20 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | One jumper |
| 272-604 | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 50 | - | - | - |
| 272-604 | 8- 7 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - | 20,000 chum in lagoon |
| 272-604 | 8-17 | A. Quimby | P P P | 0 | 0 | 0 | 800 | - | - | 1 jumper in lagoon |

-Continued-

Table 47. (page 5 of 12)

| Stream | Date MM-DD | Observer | Visibility | | | -----Fish in Stream----- | | | | Build Up Fish | | Remarks |
|-----------------|---------------|-----------|------------|-----|-----|--------------------------|------|------|------|---------------|--------|------------------|
| | | | Str | Mou | Bay | Reds | Coho | Pink | Chum | Mouth | Bay | |
| Aniakchak River | | | | | | | | | | | | |
| 272-605 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | - | - |
| 272-605 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 5600 | - | - | Muddy |
| 272-605 | 8- 7 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | Fog |
| 272-605 | 8-17 | A. Quimby | P | P | P | 0 | 0 | 0 | 2500 | - | - | Silty |
| Cape Ayutka | | | | | | | | | | | | |
| 272-606 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 1000P | 300P | - |
| 272-606 | 7-26 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | 5200P | - | - |
| 272-606 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 4100 | 0 | 500P | 500P | Jumpers |
| 272-606 | 8- 7 | A. Quimby | E | E | E | 0 | 0 | 4000 | 0 | - | 6100P | - |
| 272-606 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 200 | 0 | - | - | - |
| 272-606 | 8-25 | A. Quimby | G | G | G | 0 | 0 | 100 | 0 | - | - | Windy |
| West Creek | | | | | | | | | | | | |
| 272-701 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | - | - |
| 272-701 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | - |
| 272-701 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 0 | 300 | - | - | - |
| Main Creek | | | | | | | | | | | | |
| 272-702 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | - | - |
| 272-702 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 8400 | - | 3000Ch | - |
| 272-702 | 8- 7 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | 500P | - | No stream survey |
| 272-702 | 8-17 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | Silty |
| Northeast Creek | | | | | | | | | | | | |
| 272-703 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | - | - |
| 272-703 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 1900 | 0 | - | - | - |
| 272-703 | 8- 7 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | 1900P | 3000P | No stream survey |
| 272-703 | 8-17 | A. Quimby | P | P | P | 0 | 0 | 0 | 8800 | - | - | Silty |
| Cape Kunmik | | | | | | | | | | | | |
| 272-704 | 8-17 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | - |
| Yantarni Bay | | | | | | | | | | | | |
| 272-720 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 700 | 0 | - | - | - |

-Continued-

Table 47. (page 6 of 12)

| Stream | Date MM-DD | Observer | Visibility | | | -----Fish in Stream----- | | | | Build Up Fish | | Remarks |
|-----------------|---------------|-----------|------------|-----|-----|--------------------------|------|------|------|---------------|--------|---------------------------------|
| | | | Str | Mou | Bay | Reds | Coho | Pink | Chum | Mouth | Bay | |
| Yantarni Creek | | | | | | | | | | | | |
| 272-721 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | - | - |
| 272-721 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 1700 | - | - | - |
| 272-721 | 8- 7 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | 1600Ch | 500Ch | No stream survey |
| 272-721 | 8-17 | A. Quimby | E | E | E | 150 | 0 | 5300 | 0 | - | - | Silty |
| Ocean Beach | | | | | | | | | | | | |
| 272-801 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | - | - |
| 272-801 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 2400 | - | - | - |
| 272-801 | 8- 7 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | Fog |
| 272-801 | 8-17 | A. Quimby | P | P | P | 0 | 0 | 0 | 700 | - | - | Silty |
| Ocean Beach | | | | | | | | | | | | |
| 272-802 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | - | - |
| 272-802 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | Fish camp |
| 272-802 | 8- 7 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | Fog |
| 272-802 | 8-17 | A. Quimby | P | P | P | 0 | 0 | 7000 | 0 | 200Co | - | Silty |
| Nakalilok Bay | | | | | | | | | | | | |
| 272-803 | 7-20 | A. Quimby | G | G | G | 0 | 0 | 0 | 0 | - | - | - |
| Nakalilok River | | | | | | | | | | | | |
| 272-804 | 7-20 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | - |
| 272-804 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 400 | - | 4000Ch | Jumpers |
| 272-804 | 8- 7 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | 8600Ch | 1 airplane on beach |
| 272-804 | 8-17 | A. Quimby | P | P | P | 0 | 0 | 0 | 4100 | - | - | Silty |
| Nakalilok Bay | | | | | | | | | | | | |
| 272-805 | 7-20 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | - |
| 272-805 | 7-26 | A. Quimby | P | P | P | 0 | 0 | 800 | 0 | - | - | Windy |
| 272-805 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | 700P | - | - |
| 272-805 | 8- 7 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | 3000P | Stream very, very low, 4 sharks |
| 272-805 | 8-17 | A. Quimby | G | G | G | 0 | 0 | 4800 | 0 | - | - | - |
| Cape Kuyuyukak | | | | | | | | | | | | |
| 272-900 | 7-26 | A. Quimby | P | P | P | 0 | 0 | 0 | 0 | - | - | Low water in stream |
| 272-900 | 8- 1 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | - | Low water |
| 272-900 | 8- 7 | A. Quimby | E | E | E | 0 | 0 | 0 | 0 | - | 4300P | Stream very, very low |

-Continued-

Table 47. (page 7 of 12)

| Stream | Date MM-DD | Observer | Visibility | | | -----Fish in Stream----- | | | | Build Up Fish | | Remarks | | | | |
|------------------|---------------|-----------|------------|-----|-----|--------------------------|------|------|------|---------------|------|---------|--------|-------|--|-----------------------|
| | | | Str | Mou | Bay | Reds | Coho | Pink | Chum | Mouth | Bay | | | | | |
| Cape Kuyuyukak | | | | | | | | | | | | | | | | |
| 272-900 | 8-17 | A. Quimby | | G | G | G | | 0 | 0 | 3400 | 0 | | - | - | | - |
| Cape Kuyuyukak | | | | | | | | | | | | | | | | |
| 272-901 | 7-20 | A. Quimby | | P | P | P | | 0 | 0 | 0 | 0 | | - | - | | - |
| 272-901 | 7-24 | A. Quimby | | P | P | P | | 0 | 0 | 0 | 0 | | - | - | | Low water in stream |
| 272-901 | 8- 1 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | 100P | - | | Low water |
| 272-901 | 8- 7 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | - | 7700P | | Stream very, very low |
| 272-901 | 8-17 | A. Quimby | | G | G | G | | 0 | 0 | 7200 | 0 | | - | - | | - |
| Chiginagak Bay | | | | | | | | | | | | | | | | |
| 272-902 | 7-20 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | - |
| 272-902 | 8- 1 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | 1200P | - | | - |
| 272-902 | 8- 7 | A. Quimby | | E | E | E | | 0 | 0 | 1100 | 0 | | 700P | 4500P | | - |
| 272-902 | 8-17 | A. Quimby | | G | G | G | | 0 | 0 | 18600 | 0 | | - | - | | Silty |
| Chiginagak River | | | | | | | | | | | | | | | | |
| 272-903A | 7-26 | A. Quimby | | P | P | P | | 0 | 0 | 0 | 0 | | - | - | | Windy |
| 272-903A | 8- 1 | A. Quimby | | E | E | E | | 0 | 0 | 300 | 0 | | - | - | | Muddy |
| 272-903A | 8- 7 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | - | 3800P | | No stream survey |
| 272-903A | 8-17 | A. Quimby | | P | P | P | | 0 | 0 | 0 | 0 | | - | - | | Silty |
| Chiginagak Bay | | | | | | | | | | | | | | | | |
| 272-903B | 7-26 | A. Quimby | | P | P | P | | 0 | 0 | 0 | 0 | | - | - | | Windy |
| 272-903B | 8-17 | A. Quimby | | P | P | P | | 0 | 0 | 0 | 0 | | - | - | | Silty |
| Chiginagak Bay | | | | | | | | | | | | | | | | |
| 272-904 | 7-26 | A. Quimby | | P | P | P | | 0 | 0 | 0 | 0 | | - | - | | Windy |
| 272-904 | 8- 1 | A. Quimby | | E | E | E | | 0 | 0 | 500 | 0 | | - | - | | Fish camp;four tents |
| 272-904 | 8- 7 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | 7500Ch | - | | No stream survey |
| 272-904 | 8-17 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 5500 | | - | - | | Sport camp @ mouth |
| Chiginagak Bay | | | | | | | | | | | | | | | | |
| 272-905 | 7-20 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | - |
| 272-905 | 7-26 | A. Quimby | | P | P | P | | 0 | 0 | 0 | 0 | | - | - | | Windy |
| 272-905 | 8- 1 | A. Quimby | | E | E | E | | 0 | 0 | 500 | 0 | | - | - | | - |
| 272-905 | 8- 7 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | 1800Ch | 7200P | | No stream survey |
| 272-905 | 8-17 | A. Quimby | | G | G | G | | 0 | 0 | 5200 | 5000 | | 2000P | - | | - |
| | | | | | | | | | | | | | 2000Ch | | | |

-Continued-

Table 47. (page 8 of 12)

| Stream | Date MM-DD | Observer | Visibility | | | -----Fish in Stream----- | | | | Build Up Fish | | Remarks | | | | |
|-------------------|---------------|-----------|------------|-----|-----|--------------------------|------|------|------|---------------|------|---------|--------|-------|--|------------------------|
| | | | Str | Mou | Bay | Reds | Coho | Pink | Chum | Mouth | Bay | | | | | |
| Chiginagak Bay | | | | | | | | | | | | | | | | |
| 272-906 | 7-20 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | - |
| Chiginagak Bay | | | | | | | | | | | | | | | | |
| 272-907 | 7-20 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | - |
| 272-907 | 8-17 | A. Quimby | | G | G | G | | 0 | 0 | 3000 | 0 | | - | - | | - |
| Port Wrangell Bay | | | | | | | | | | | | | | | | |
| 272-921 | 7-20 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | - |
| 272-921 | 7-26 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | - |
| 272-921 | 8- 1 | A. Quimby | | E | E | E | | 0 | 0 | 600 | 0 | | - | - | | - |
| 272-921 | 8- 7 | A. Quimby | | 0 | E | E | | 0 | 0 | 0 | 0 | | - | - | | No stream survey |
| 272-921 | 8-17 | A. Quimby | | P | P | P | | 0 | 0 | 0 | 0 | | - | - | | Silty |
| Port Wrangell Bay | | | | | | | | | | | | | | | | |
| 272-922 | 7-26 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | Dry at mouth |
| 272-922 | 8- 7 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | 1700P | - | | No stream survey, low, |
| low water | | | | | | | | | | | | | | | | |
| 272-922 | 8-17 | A. Quimby | | G | G | G | | 0 | 0 | 500 | 0 | | - | 200P | | - |
| Cape Providence | | | | | | | | | | | | | | | | |
| 272-923 | 8- 7 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | 5100P | - | | No stream survey, low, |
| low water | | | | | | | | | | | | | | | | |
| 272-923 | 8-17 | A. Quimby | | G | G | G | | 0 | 0 | 1200 | 0 | | - | - | | - |
| Agripina River | | | | | | | | | | | | | | | | |
| 272-961A | 7-20 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | - |
| 272-961A | 7-26 | A. Quimby | | G | G | G | | 0 | 0 | 800 | 0 | | - | - | | - |
| 272-961A | 8- 1 | A. Quimby | | E | E | E | | 0 | 0 | 4800 | 0 | | - | - | | - |
| 272-961A | 8- 7 | A. Quimby | | E | E | E | | 0 | 0 | 6000 | 300 | | 7700Ch | 5500P | | - |
| 272-961A | 8-17 | A. Quimby | | E | E | E | | 0 | 0 | 5000 | 5000 | | - | 7800P | | - |
| Agripina Bay | | | | | | | | | | | | | | | | |
| 272-961B | 7-20 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | - |
| 272-961B | 7-26 | A. Quimby | | G | G | G | | 0 | 0 | 0 | 0 | | - | - | | - |
| 272-961B | 8- 1 | A. Quimby | | E | E | E | | 0 | 0 | 100 | 0 | | - | - | | - |
| 272-961B | 8- 7 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | 2000P | - | | 3000 pinks @ 1k mouth |
| 272-961B | 8-17 | A. Quimby | | E | E | E | | 0 | 0 | 0 | 0 | | - | - | | 3900 pinks in lake |

-Continued-

Table 47. (page 9 of 12)

| Stream | Date MM-DD | Observer | Visibility Str Mou Bay | -----Fish in Stream----- | | | | Build Up Fish | | Remarks |
|-----------------|---------------|-----------|---------------------------|--------------------------|------|-------|------|---------------|--------|----------------------|
| | | | | Reds | Coho | Pink | Chum | Mouth | Bay | |
| Glacier Creek | | | | | | | | | | |
| 272-962 | 7-20 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | - |
| 272-962 | 7-26 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | - |
| 272-962 | 8- 1 | A. Quimby | E E E | 0 | 0 | 200 | 0 | - | 200P | Fish in clear trib. |
| 272-962 | 8- 7 | A. Quimby | E E E | 0 | 0 | 200 | 1200 | 200Ch | 400P | - |
| 272-962 | 8-17 | A. Quimby | P P P | 0 | 0 | 0 | 0 | - | - | Silty |
| Kilokak Creek | | | | | | | | | | |
| 272-963 | 7-20 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | - |
| 272-963 | 7-26 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | Stream dry at mouth |
| 272-963 | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 0 | 200P | - | Stream dry at mouth. |
| 272-963 | 8- 7 | A. Quimby | E E E | 0 | 0 | 0 | 0 | 200P | - | Stream dry @ mouth |
| 272-963 | 8-17 | A. Quimby | E E E | 0 | 0 | 9700 | 0 | - | 1900P | - |
| Red Bluff Creek | | | | | | | | | | |
| 273-702 | 7-24 | A. Quimby | G G G | 0 | 0 | 1800 | 0 | - | - | - |
| 273-702 | 7-30 | A. Quimby | G G G | 0 | 0 | 1000 | 0 | - | - | - |
| 273-702 | 8- 6 | A. Quimby | G G G | 0 | 0 | 3700 | 0 | - | - | - |
| 273-702 | 8-19 | A. Quimby | E E E | 0 | 0 | 52200 | 0 | - | - | - |
| Ivan River | | | | | | | | | | |
| 273-722 | 7-24 | A. Quimby | G G G | 0 | 0 | 0 | 200 | - | - | - |
| 273-722 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | Jumpers in Bay |
| 273-722 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 3100 | 900Ch | 800Ch | - |
| 273-722 | 8-19 | A. Quimby | E E E | 0 | 0 | 42200 | 0 | - | - | 4 seals @ mouth |
| Fishrack Bay | | | | | | | | | | |
| 273-723 | 7-24 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | - |
| 273-723 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 30Ch | - | - |
| 273-723 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | 900Ch | - |
| 273-723 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 700 | - | - | 4 seals @ mouth |
| Foot Bay | | | | | | | | | | |
| 273-802 | 7-24 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | - |
| 273-802 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | - |
| 273-802 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 400 | - | 300Ch | - |
| 273-802 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 4900 | - | 5000Ch | - |
| 273-802 | 8-25 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 3700Ch | - | Windy |

-Continued-

Table 47. (page 10 of 12)

| Stream | Date MM-DD | Observer | Visibility Str Mou Bay | -----Fish in Stream----- | | | | Build Up Fish | Remarks |
|-------------|---------------|-----------|---------------------------|--------------------------|------|------|-------|---------------|---------|
| | | | | Reds | Coho | Pink | Chum | Mouth Bay | |
| Windy Bay | | | | | | | | | |
| 273-821 | 7-24 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 273-821 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 200Ch | - |
| 273-821 | 8-19 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 400Ch | - |
| 273-821 | 8-25 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 400Ch | - |
| Windy Bay | | | | | | | | | |
| 273-822 | 7-24 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 273-822 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 273-822 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - |
| 273-822 | 8-25 | A. Quimby | P P P | 0 | 0 | 0 | 0 | - | - |
| Spoon Creek | | | | | | | | | |
| 273-823 | 7-24 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 273-823 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 273-823 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 600 | - | 1900Ch |
| 273-823 | 8-25 | A. Quimby | G G G | 0 | 0 | 0 | 1700 | - | - |
| Portage Bay | | | | | | | | | |
| 273-842 | 7-24 | A. Quimby | G G G | 0 | 0 | 0 | 100 | 300Ch | - |
| 273-842 | 7-28 | A. Quimby | G G G | 0 | 0 | 0 | 25 | - | 1500Ch |
| 273-842 | 7-30 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - |
| 273-842 | 8- 1 | A. Quimby | E E E | 0 | 0 | 0 | 2100 | - | - |
| 273-842 | 8- 6 | A. Quimby | G G P | 0 | 0 | 0 | 1100 | - | - |
| 273-842 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 9500 | - | 5000Ch |
| 273-842 | 8-25 | A. Quimby | G G G | 0 | 0 | 0 | 18700 | - | - |
| Seal Bay | | | | | | | | | |
| 273-843 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 50 | - | - |
| 273-843 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 250 | 300Ch | - |
| 273-843 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 1800 | - | 2000Ch |
| 273-843 | 8-25 | A. Quimby | G G G | 0 | 0 | 0 | 2000 | - | - |
| Seal Bay | | | | | | | | | |
| 273-844 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 273-844 | 8- 6 | A. Quimby | G G P | 0 | 0 | 0 | 0 | - | - |
| 273-844 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 0 | - | - |
| 273-844 | 8-25 | A. Quimby | G G G | 0 | 0 | 0 | 600 | - | - |

-Continued-

Table 47. (page 11 of 12)

| Stream | Date | Observer | Visibility | -----Fish in Stream----- | | | | Build Up Fish | Remarks |
|---------------------|-------|-----------|-------------|--------------------------|------|------|-------|---------------|---------|
| | MM-DD | | Str Mou Bay | Reds | Coho | Pink | Chum | Mouth Bay | |
| Dog Bay | | | | | | | | | |
| 273-845 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 273-845 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 273-845 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 400 | - | 600Ch |
| 273-845 | 8-25 | A. Quimby | G G G | 0 | 0 | 0 | 1300 | - | - |
| Castle Bay | | | | | | | | | |
| 273-941 | 8- 1 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 50P | - |
| 273-941 | 8-17 | A. Quimby | G G G | 0 | 0 | 1000 | 0 | - | 4000P |
| Kupreanof Peninsula | | | | | | | | | |
| 275-400 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 275-400 | 8- 6 | A. Quimby | E E E | 0 | 0 | 0 | 0 | 100P | - |
| Kupreanof Peninsula | | | | | | | | | |
| 275-401 | 7-30 | A. Quimby | G G G | 0 | 0 | 600 | 0 | - | - |
| 275-401 | 8- 6 | A. Quimby | E E E | 0 | 0 | 2800 | 0 | 200P | - |
| 275-401 | 8-19 | A. Quimby | E E E | 0 | 0 | 3500 | 0 | - | - |
| Smokey Hollow Creek | | | | | | | | | |
| 275-402 | 7-24 | A. Quimby | F F Ff | 0 | 0 | 0 | 0 | - | - |
| 275-402 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 600 | - | - |
| 275-402 | 8- 6 | A. Quimby | E E E | 0 | 0 | 0 | 500 | - | 500Ch |
| 275-402 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 10000 | - | - |
| Ivanof Bay | | | | | | | | | |
| 275-403 | 7-24 | A. Quimby | f f f | 0 | 0 | 0 | 0 | - | - |
| 275-403 | 7-30 | A. Quimby | F F F | 0 | 0 | 0 | 0 | - | - |
| Wasco's Creek | | | | | | | | | |
| 275-404 | 7-24 | A. Quimby | f f f | 0 | 0 | 0 | 0 | - | - |
| 275-404 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |
| 275-404 | 8- 6 | A. Quimby | E E E | 0 | 0 | 0 | 100 | - | 10000Ch |
| 275-404 | 8-19 | A. Quimby | E E E | 0 | 0 | 0 | 100 | - | - |
| Sunnyside Creek | | | | | | | | | |
| 275-405 | 7-24 | A. Quimby | f f f | 0 | 0 | 0 | 0 | - | - |
| 275-405 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - |

-Continued-

Table 47. (page 12 of 12)

| Stream | Date | Observer | Visibility | -----Fish in Stream----- | | | | Build Up Fish | Fish | | Remarks |
|------------------|-------|-----------|-------------|--------------------------|------|-------|--------|---------------|---------|--|---------------------------------|
| | MM-DD | | Str Mou Bay | Reds | Coho | Pink | Chum | Mouth | Bay | | |
| Ivanof River | | | | | | | | | | | |
| 275-406 | 7-10 | A. Quimby | E E E | 0 | 0 | 0 | 10000 | 65000Ch | - | | Jumpers in bay, couldn't count. |
| 275-406 | 7-30 | A. Quimby | E E E | 0 | 0 | 0 | 130000 | 15000Ch | 15000Ch | | - |
| 275-406 | 8- 6 | A. Quimby | E E E | 0 | 0 | 82500 | 167500 | - | 33000P | | - |
| | | | | | | | | 70000Ch | | | |
| 275-406 | 8-19 | A. Quimby | E E E | 0 | 0 | 67800 | 137900 | - | 33000P | | - |
| | | | | | | | | | 70000Ch | | |
| Ivanof Bay | | | | | | | | | | | |
| 275-408 | 8- 6 | A. Quimby | E E E | 0 | 0 | 0 | 0 | 5000P | - | | Low water |
| 275-408 | 8-19 | A. Quimby | E E E | 0 | 0 | 35500 | 0 | - | 3000P | | - |
| Humpback Creek | | | | | | | | | | | |
| 275-502 | 7-30 | A. Quimby | G G G | 0 | 0 | 5200 | 0 | - | 30000P | | - |
| 275-502 | 8-19 | A. Quimby | E E E | 0 | 0 | 91100 | 0 | - | - | | - |
| Humpback Creek | | | | | | | | | | | |
| 275-504 | 7-24 | A. Quimby | G G G | 0 | 0 | 13000 | 0 | 2000P | - | | - |
| 275-504 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | | - |
| 275-504 | 8- 6 | A. Quimby | G G G | 0 | 0 | 6200 | 0 | - | 11600P | | - |
| 275-504 | 8-19 | A. Quimby | E E E | 0 | 0 | 40000 | 0 | - | 12300P | | - |
| Humpback Bay | | | | | | | | | | | |
| 275-505 | 7-24 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | | - |
| 275-505 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 100P | - | | - |
| 275-505 | 8- 6 | A. Quimby | E E E | 0 | 0 | 0 | 0 | 6000P | - | | Dry stream |
| Humpback Bay | | | | | | | | | | | |
| 275-506 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | 4100Ch | | Dry stream |
| Kametolook River | | | | | | | | | | | |
| 275-600 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 0 | 200Ch | - | | Silty beach |
| Kametolook River | | | | | | | | | | | |
| 275-601 | 7-24 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | | - |
| 275-601 | 7-30 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | - | | - |
| 275-601 | 8- 6 | A. Quimby | G G G | 0 | 0 | 0 | 0 | - | 700Ch | | - |
| 275-601 | 8-19 | A. Quimby | P P P | 0 | 0 | 1700 | 0 | - | - | | Silty |

^aAerial surveys were conducted only August 25 due to the lack of funds. No survey was conducted primarily for coho.

Table 48. Pink and chum salmon escapement estimates for select Chignik Management Area streams, 1953-1991 (in thousands of fish).^a

| Year | Thompson Valley | | Hook Bay | | Cape Kumlik | | Bear Cr. | |
|------|-----------------|------|----------|------|-------------|------|----------|------|
| | 272-204 | | 272-302 | | 272-501 | | 272-505 | |
| | Pink | Chum | Pink | Chum | Pink | Chum | Pink | Chum |
| 1953 | 25.3 | 0.0 | 13.0 | 6.3 | | | 0.0 | 0.7 |
| 1954 | 28.2 | 4.5 | 14.3 | 5.3 | | | 0.2 | 0.2 |
| 1955 | 115.0 | 3.0 | 78.0 | 0.0 | | | 1.0 | 0.0 |
| 1956 | | | | | | | | |
| 1957 | | | | | | | | |
| 1958 | | | | | | | | |
| 1959 | | | | | | | | |
| 1960 | | | | | | | | |
| 1961 | | | | | | | | |
| 1962 | 7.0 | 0.0 | 18.9 | 4.1 | 7.0 | 0.0 | 0.0 | 12.4 |
| 1963 | 23.3 | 0.0 | 33.0 | 7.5 | 23.0 | 0.0 | 0.0 | 9.5 |
| 1964 | 4.1 | 0.0 | 42.0 | 1.2 | 8.7 | 0.0 | 0.0 | 8.8 |
| 1965 | 9.4 | 0.0 | 23.3 | 2.1 | 13.7 | 0.0 | 0.0 | 8.5 |
| 1966 | 4.1 | 0.0 | 10.0 | 0.5 | 3.8 | 0.0 | 0.0 | 4.3 |
| 1967 | 2.0 | 0.4 | 7.3 | 2.5 | 5.2 | 0.0 | 0.0 | 8.0 |
| 1968 | | | 5.0 | 0.0 | | | 0.0 | 2.7 |
| 1969 | 19.0 | 0.0 | 30.0 | 0.0 | | | 0.0 | 4.5 |
| 1970 | 12.0 | 0.0 | 11.0 | 1.0 | 5.0 | 0.0 | 0.0 | 10.0 |
| 1971 | 7.5 | 0.0 | 13.0 | 8.0 | 51.0 | 0.0 | 0.0 | 10.0 |
| 1972 | 0.2 | 0.0 | 0.4 | 1.1 | 0.2 | 0.0 | 0.0 | 2.5 |
| 1973 | 2.3 | 0.2 | 4.9 | 4.7 | 40.0 | 0.0 | 0.0 | 4.0 |
| 1974 | 1.6 | 0.1 | 3.8 | 0.8 | 0.6 | 0.0 | 0.0 | 2.3 |
| 1975 | 10.2 | 0.0 | 1.3 | 6.0 | 17.8 | 0.0 | 0.0 | 1.5 |
| 1976 | 5.5 | 0.2 | 8.0 | 2.5 | 2.6 | 0.0 | 0.0 | 1.4 |
| 1977 | 29.4 | 0.0 | 22.6 | 2.0 | 124.0 | 0.0 | 0.5 | 2.6 |
| 1978 | 14.0 | 0.0 | 14.5 | 2.8 | 6.1 | 0.0 | 0.1 | 1.5 |
| 1979 | 35.5 | 1.0 | 42.7 | 11.0 | 153.0 | 0.0 | 0.0 | 5.0 |
| 1980 | 0.7 | 0.0 | 24.5 | 4.2 | 2.6 | 0.0 | 0.2 | 0.0 |
| 1981 | 6.5 | 0.5 | 13.9 | 9.0 | 36.2 | 0.0 | 0.1 | 0.0 |
| 1982 | 1.2 | 0.0 | 7.3 | 10.0 | 0.9 | 0.0 | 0.0 | 2.5 |
| 1983 | 2.3 | 0.0 | 0.2 | 0.3 | 0.0 | 0.0 | 2.0 | 7.9 |
| 1984 | 14.0 | 0.0 | 16.2 | 0.1 | 3.7 | 0.0 | 0.3 | 2.3 |
| 1985 | 0.0 | 0.0 | 2.0 | 0.0 | | | 0.0 | 7.2 |
| 1986 | 0.3 | 0.0 | 66.9 | 0.0 | 38.2 | 0.0 | 0.0 | 7.5 |
| 1987 | | | 9.5 | 0.3 | 46.9 | 0.3 | 0.0 | 12.0 |
| 1988 | 9.6 | 3.3 | 26.4 | 0.7 | 18.0 | 0.0 | 0.0 | 0.7 |
| 1989 | 16.6 | 3.7 | 45.5 | 10.2 | 63.0 | 0.0 | 0.0 | 3.6 |
| 1990 | 4.8 | 0.0 | 16.7 | 0.2 | 3.2 | 0.0 | 0.3 | T |
| 1991 | 0.0 | 0.0 | 0.0 | 0.0 | 109.7 | 0.0 | 0.0 | .9 |

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Table 48. (page 2 of 8)

| | Rudys Cr. | | North Fork | | Aniakchak R. | | Cape Agutka | |
|------|-----------|------|------------|------|--------------|------|-------------|------|
| | 272-509 | | 272-514 | | 272-605 | | 272-606 | |
| Year | Pink | Chum | Pink | Chum | Pink | Chum | Pink | Chum |
| 1953 | 0.7 | 0.2 | 1.3 | 3.5 | 0.0 | 35.0 | 0.2 | 0.7 |
| 1954 | | | 55.0 | 4.6 | 100.0 | 37.2 | 3.9 | 1.5 |
| 1955 | 15.0 | 4.0 | 13.5 | 1.0 | 16.0 | 0.0 | 1.2 | 0.0 |
| 1956 | | | | | | | | |
| 1957 | | | | | | | | |
| 1958 | | | | | | | | |
| 1959 | | | | | | | | |
| 1960 | | | | | | | | |
| 1961 | | | | | | | | |
| 1962 | 4.5 | 5.2 | 34.0 | 0.8 | 126.0 | 25.0 | 17.6 | 0.5 |
| 1963 | 0.0 | 12.0 | 9.7 | 1.8 | 6.0 | 14.6 | 0.4 | 0.0 |
| 1964 | 0.5 | 5.0 | 68.0 | 3.0 | 175.0 | 82.5 | 11.0 | 1.1 |
| 1965 | 0.0 | 1.1 | 8.7 | 2.0 | 10.8 | 4.0 | 5.1 | 0.1 |
| 1966 | 2.0 | 3.0 | 2.0 | | 90.8 | 9.0 | 7.7 | 0.2 |
| 1967 | 1.0 | 3.0 | 20.0 | 1.1 | 2.0 | 10.5 | 1.1 | 0.1 |
| 1968 | 2.0 | 7.0 | 26.0 | 0.0 | 85.0 | 10.0 | 22.3 | 0.0 |
| 1969 | 0.2 | 1.0 | 5.2 | 4.0 | 0.1 | 0.5 | 4.6 | 2.0 |
| 1970 | 0.0 | 3.0 | 24.0 | 8.0 | 40.0 | 30.5 | 10.0 | 2.0 |
| 1971 | 0.0 | 1.3 | 0.0 | 4.5 | 0.0 | 11.5 | 2.0 | 3.0 |
| 1972 | 0.2 | 1.7 | 1.7 | 6.9 | 1.8 | 7.1 | 2.5 | 1.5 |
| 1973 | 0.0 | 1.2 | 2.8 | 1.5 | 2.7 | 4.0 | 1.5 | 1.8 |
| 1974 | 0.8 | 4.2 | 2.5 | 4.2 | 29.8 | 25.7 | 1.6 | 0.0 |
| 1975 | 0.0 | 1.8 | 0.4 | 3.7 | 2.4 | 5.5 | 1.9 | 0.2 |
| 1976 | 6.2 | 3.7 | 17.5 | 7.9 | 165.0 | 34.0 | 5.9 | 0.8 |
| 1977 | 6.3 | 0.9 | 6.6 | 2.3 | 3.0 | 14.8 | 1.0 | 0.1 |
| 1978 | 4.0 | 2.2 | 46.0 | 6.9 | 215.5 | 23.2 | 8.0 | 0.2 |
| 1979 | 12.0 | 7.7 | 12.7 | 5.6 | 0.0 | 0.2 | 13.0 | 1.5 |
| 1980 | 9.3 | 0.0 | 38.5 | 29.5 | 40.0 | 43.0 | 20.0 | 5.5 |
| 1981 | 0.7 | 0.1 | 15.8 | 16.5 | 2.7 | 32.0 | 5.8 | 0.0 |
| 1982 | 0.2 | 8.7 | 19.0 | 3.5 | 130.0 | 47.0 | 21.0 | 0.0 |
| 1983 | 0.0 | 1.3 | 4.1 | 1.3 | 1.0 | 3.1 | 0.1 | 0.0 |
| 1984 | 4.5 | 5.0 | 32.4 | 17.4 | 56.4 | 47.0 | 17.2 | 1.2 |
| 1985 | 0.0 | 0.0 | 4.7 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 1986 | 38.0 | 10.9 | 34.3 | 5.0 | 1.5 | 0.5 | 65.0 | 0.4 |
| 1987 | 0.0 | 0.0 | 8.8 | 4.0 | 2.5 | 0.3 | 4.2 | 0.3 |
| 1988 | 34.9 | 16.6 | 48.5 | 17.0 | 95.1 | 17.4 | 84.4 | 0.0 |
| 1989 | 7.3 | 0.4 | 23.0 | 1.2 | 5.0 | 2.5 | 1.8 | 0.0 |
| 1990 | 8.0 | 1.3 | 40.9 | .7 | 19.7 | 11.6 | 46.5 | 0.0 |
| 1991 | 0.0 | 7.4 | 2.1 | 2.9 | 0.0 | 7.6 | 4.1 | 0.0 |

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Table 48. (page 3 of 8)

| Year | Main Cr. | | Northeast Cr. | | Yantarni Cr. | | Ocean Beach | |
|------|----------|------|---------------|------|--------------|------|-------------|------|
| | 272-702 | | 272-703 | | 272-721 | | 272-801 | |
| | Pink | Chum | Pink | Chum | Pink | Chum | Pink | Chum |
| 1953 | 0.2 | 17.0 | 3.5 | 2.0 | | | | |
| 1954 | 6.9 | 21.5 | 1.1 | 0.8 | | | | |
| 1955 | 25.2 | 0.8 | | | 7.5 | 7.0 | 8.0 | 3.0 |
| 1956 | | | | | | | | |
| 1957 | | | | | | | | |
| 1958 | | | | | | | | |
| 1959 | | | | | | | | |
| 1960 | | | | | | | | |
| 1961 | | | | | | | | |
| 1962 | 33.0 | 3.6 | 1.6 | 2.5 | 52.5 | 0.1 | 45.0 | 2.0 |
| 1963 | 16.0 | 5.8 | 5.0 | 0.9 | 16.0 | 0.3 | 3.4 | 0.0 |
| 1964 | 40.5 | | 2.3 | 3.0 | 42.0 | 21.0 | 34.6 | 10.1 |
| 1965 | 5.0 | 4.8 | 2.3 | 6.0 | 4.0 | 7.6 | 0.4 | 1.0 |
| 1966 | 3.0 | 0.0 | 1.3 | 0.2 | 18.5 | 5.0 | 11.0 | 3.3 |
| 1967 | 16.5 | 2.0 | 2.0 | 0.2 | | | | |
| 1968 | 28.0 | 8.0 | 7.7 | 1.0 | 25.0 | 6.5 | 26.5 | 0.0 |
| 1969 | 3.0 | 15.0 | 7.0 | 4.5 | 1.5 | 11.0 | 6.0 | 3.5 |
| 1970 | 13.0 | 7.0 | 7.0 | 6.0 | 1.5 | 11.5 | 7.5 | 5.0 |
| 1971 | 1.0 | 20.0 | 2.0 | 5.5 | 0.0 | 18.0 | 0.0 | 3.5 |
| 1972 | 2.0 | 8.0 | 1.7 | 0.5 | 2.1 | 21.0 | 0.5 | 4.6 |
| 1973 | 1.0 | 7.0 | 1.1 | 3.1 | 0.3 | 6.5 | 0.6 | 1.7 |
| 1974 | 6.6 | 6.3 | 3.0 | 2.0 | 3.7 | 3.8 | 2.3 | 2.2 |
| 1975 | 4.7 | 8.0 | 0.4 | 0.7 | 0.3 | 1.6 | 0.8 | 0.2 |
| 1976 | 5.5 | 8.5 | 3.8 | 2.0 | 5.8 | 12.5 | 4.2 | 3.0 |
| 1977 | 4.5 | 3.5 | 10.0 | 0.8 | 1.9 | 3.5 | 1.1 | 0.4 |
| 1978 | 5.6 | 7.6 | 4.4 | 4.6 | 7.9 | 3.3 | 7.1 | 0.5 |
| 1979 | 13.5 | 14.0 | 7.0 | 7.5 | 14.0 | 9.5 | 1.5 | 0.0 |
| 1980 | 53.5 | 17.0 | 4.8 | 3.0 | 60.0 | 11.0 | 27.6 | 0.0 |
| 1981 | 6.3 | 16.3 | 5.9 | 2.5 | 13.5 | 18.2 | 10.5 | 5.5 |
| 1982 | 36.0 | 12.3 | 6.2 | 3.7 | 8.5 | 25.5 | 0.0 | 14.5 |
| 1983 | 9.2 | 6.7 | 3.2 | 4.7 | 3.6 | 13.4 | 3.1 | 1.5 |
| 1984 | 15.7 | 14.5 | 7.0 | 4.3 | 26.5 | 18.7 | 19.0 | 13.2 |
| 1985 | 13.7 | 4.0 | 9.0 | 0.0 | 67.8 | 0.7 | 9.9 | 0.0 |
| 1986 | 85.0 | 0.0 | 13.6 | 0.0 | 3.1 | 0.3 | 1.8 | 0.2 |
| 1987 | 14.3 | 1.5 | 7.5 | 0.4 | 18.0 | 3.0 | 13.0 | 2.7 |
| 1988 | 43.6 | 5.5 | 41.4 | 10.6 | 33.7 | 30.3 | 32.8 | 12.8 |
| 1989 | 53.0 | 3.2 | 17.0 | 4.0 | 10.9 | 3.4 | 10.9 | 4.8 |
| 1990 | 54.3 | 5.7 | 80.3 | 13.3 | 23.6 | 9.3 | 45.0 | 1.3 |
| 1991 | 0.0 | 8.4 | 1.9 | 8.8 | 5.3 | 1.7 | 0.0 | 2.8 |

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Table 48. (page 4 of 8)

| Year | Nakalilok R. | | Chiginagak | | Chiginagak R. | | Chiginagak | |
|------|--------------|------|------------|------|---------------|------|------------|------|
| | 272-804 | | 272-902 | | 272-903 | | 272-904 | |
| | Pink | Chum | Pink | Chum | Pink | Chum | Pink | Chum |
| 1953 | | | | | | | | |
| 1954 | | | | | | | | |
| 1955 | 3.0 | 0.5 | | | 0.0 | 15.9 | | |
| 1956 | | | | | | | | |
| 1957 | | | | | | | | |
| 1958 | | | | | | | | |
| 1959 | | | | | | | | |
| 1960 | | | | | | | | |
| 1961 | | | | | | | | |
| 1962 | 22.0 | 0.1 | 16.0 | 0.0 | 0.3 | 34.3 | 20.1 | 0.0 |
| 1963 | 10.4 | 0.1 | 1.2 | 0.0 | 0.0 | 15.0 | 43.0 | 0.0 |
| 1964 | 89.0 | 3.0 | 20.0 | 0.0 | 6.0 | 24.4 | 41.4 | 0.0 |
| 1965 | 0.5 | 9.0 | 0.4 | 0.0 | 0.0 | 13.8 | 12.4 | 0.1 |
| 1966 | 12.5 | 0.0 | 5.8 | 0.0 | 0.0 | 33.2 | 16.0 | 0.0 |
| 1967 | 3.5 | 18.5 | 0.5 | 0.1 | 0.0 | 27.0 | 12.4 | 0.0 |
| 1968 | 7.4 | 2.0 | 21.0 | 0.0 | 2.0 | 29.5 | 20.0 | 0.0 |
| 1969 | 8.0 | 3.5 | 1.3 | 0.0 | | 20.0 | 6.0 | 0.0 |
| 1970 | 10.0 | 6.5 | 11.0 | 0.0 | 0.0 | 31.0 | 4.0 | 0.0 |
| 1971 | 1.0 | 44.0 | 2.8 | 0.0 | 0.0 | 86.0 | 1.1 | 0.0 |
| 1972 | 0.0 | 6.0 | 0.1 | 0.3 | 1.0 | 33.0 | 0.1 | 0.1 |
| 1973 | 0.5 | 5.2 | 0.3 | 0.0 | 0.2 | 28.3 | 0.5 | 0.0 |
| 1974 | 2.2 | 4.8 | 0.2 | 0.2 | 8.5 | 28.5 | 0.9 | 0.0 |
| 1975 | 3.0 | 4.8 | 0.5 | 0.5 | 2.9 | 20.3 | 0.8 | 0.0 |
| 1976 | 2.4 | 14.2 | 0.7 | 0.0 | 0.7 | 35.0 | 2.2 | 0.0 |
| 1977 | 3.8 | 4.9 | 2.7 | 0.0 | 1.8 | 19.4 | 3.8 | 0.0 |
| 1978 | 8.1 | 4.2 | 4.4 | 0.4 | 1.3 | 9.1 | 3.5 | 0.0 |
| 1979 | 12.0 | 2.9 | 11.0 | 15.0 | 0.4 | 24.3 | 7.2 | 0.0 |
| 1980 | 25.6 | 14.0 | 17.9 | 0.0 | 16.3 | 5.7 | 14.5 | 0.0 |
| 1981 | 6.5 | 8.0 | 5.0 | 0.0 | 6.0 | 23.4 | 6.9 | 0.0 |
| 1982 | 4.0 | 12.3 | 2.2 | 0.0 | 2.0 | 18.5 | 1.7 | 0.4 |
| 1983 | 4.8 | 4.2 | 0.7 | 0.0 | 1.8 | 9.6 | 1.9 | 0.0 |
| 1984 | 15.0 | 36.5 | 16.6 | 0.0 | 6.9 | 53.8 | 19.5 | 3.0 |
| 1985 | 27.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 5.0 | 0.0 |
| 1986 | 12.7 | 1.0 | 42.3 | 0.0 | 21.1 | 3.3 | 8.9 | 0.0 |
| 1987 | 1.4 | 3.8 | 3.2 | 0.4 | 67.5 | 15.7 | 11.0 | 3.3 |
| 1988 | 16.8 | 8.0 | 33.7 | 0.0 | 12.6 | 13.2 | 40.0 | 30.0 |
| 1989 | 10.6 | 4.1 | 22.0 | 0.0 | 70.4 | 4.2 | 32.0 | 11.5 |
| 1990 | 47.0 | 6.3 | 19.2 | 0.0 | 63.0 | 9.8 | 18.7 | 5.0 |
| 1991 | 0.0 | 4.1 | 18.6 | 0.0 | .3 | 0.0 | .5 | 5.5 |

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Table 48. (page 5 of 8)

| Year | Chiginagak | | Agripina R. | | Glacier Cr. | | Kilokak | |
|------|------------|------|-------------|------|-------------|------|---------|------|
| | 272-905 | | 272-961 | | 272-962 | | 272-963 | |
| | Pink | Chum | Pink | Chum | Pink | Chum | Pink | Chum |
| 1953 | | | | | | | | |
| 1954 | | | | | | | | |
| 1955 | | | | | 0.0 | 0.0 | | |
| 1956 | | | | | | | | |
| 1957 | | | | | | | | |
| 1958 | | | | | | | | |
| 1959 | | | | | | | | |
| 1960 | | | | | | | | |
| 1961 | | | | | | | | |
| 1962 | 17.1 | 0.0 | 12.0 | 3.0 | 0.5 | 3.0 | 16.2 | 0.0 |
| 1963 | 1.0 | 0.0 | 19.2 | 0.1 | 0.0 | 10.0 | 0.8 | 0.0 |
| 1964 | 100.0 | 0.3 | 8.5 | 0.0 | 0.5 | 6.0 | 14.2 | 0.0 |
| 1965 | 1.2 | 0.0 | 20.1 | 0.0 | 0.0 | 1.3 | 0.1 | 0.0 |
| 1966 | 90.5 | 0.0 | | | | | 24.5 | 0.0 |
| 1967 | 5.8 | 1.8 | 7.3 | 0.5 | 0.0 | 5.6 | 0.3 | 0.0 |
| 1968 | 53.0 | 0.0 | 12.0 | 0.0 | 0.0 | 0.2 | 65.6 | 0.0 |
| 1969 | 2.4 | 0.0 | 2.5 | 0.0 | 0.0 | 2.0 | 0.2 | 0.0 |
| 1970 | 24.0 | 0.0 | 15.5 | 0.0 | 0.0 | 5.0 | 55.0 | 0.0 |
| 1971 | 4.3 | 2.0 | 6.6 | 0.0 | 0.0 | 6.0 | 0.0 | 0.0 |
| 1972 | 2.4 | 0.0 | 1.6 | 0.0 | 0.0 | 4.6 | 2.1 | 0.0 |
| 1973 | 1.0 | 0.0 | 4.2 | 0.5 | 0.0 | 3.0 | 0.1 | 0.0 |
| 1974 | 1.9 | 0.0 | 1.2 | 0.2 | 0.0 | 0.9 | 0.3 | 0.0 |
| 1975 | 2.1 | 0.2 | 2.7 | 0.0 | 0.2 | 0.5 | 0.6 | 0.0 |
| 1976 | 20.1 | 0.4 | 4.9 | 0.0 | 0.0 | 1.8 | 4.9 | 0.0 |
| 1977 | 22.0 | 1.3 | 4.3 | 0.0 | 0.0 | 1.0 | 0.5 | 0.0 |
| 1978 | 41.0 | 0.4 | 7.4 | 0.1 | 0.6 | 1.1 | 5.9 | 0.0 |
| 1979 | 61.1 | 0.0 | 23.5 | 0.0 | 0.0 | 1.6 | 1.1 | 0.0 |
| 1980 | 38.5 | 0.0 | 14.3 | 0.0 | 5.2 | 0.7 | 61.0 | 0.0 |
| 1981 | 48.0 | 0.1 | 13.4 | 0.0 | 0.0 | 0.6 | 0.3 | 0.0 |
| 1982 | 34.1 | 0.0 | 33.0 | 0.0 | 0.0 | 1.1 | 20.0 | 0.0 |
| 1983 | 3.6 | 5.0 | 5.0 | 0.0 | 1.3 | 0.2 | 0.3 | 0.0 |
| 1984 | 117.2 | 0.2 | 39.8 | 0.0 | 1.0 | 3.2 | 75.8 | 0.0 |
| 1985 | 17.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 1986 | 85.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 175.0 | 0.0 |
| 1987 | 20.0 | 0.3 | 1.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 |
| 1988 | 52.9 | 14.4 | 78.0 | 20.6 | 0.3 | 0.0 | 137.8 | 0.0 |
| 1989 | 89.0 | 4.0 | 53.0 | 0.0 | 0.3 | 0.1 | 10.5 | 0.0 |
| 1990 | 84.8 | 2.4 | 33.3 | 0.0 | 1.1 | 0.2 | 83.4 | 0.0 |
| 1991 | 5.2 | 5.0 | 9.6 | 5.0 | .2 | 1.2 | 9.7 | 0.0 |

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Table 48. (page 6 of 8)

| Year | Coal Cape | | Ivan River | | Foot Bay | | Spoon Cr. | |
|------|-----------|------|------------|------|----------|------|-----------|------|
| | 273-702 | | 273-722 | | 273-802 | | 273-823 | |
| | Pink | Chum | Pink | Chum | Pink | Chum | Pink | Chum |
| 1953 | | | | | | | 1.0 | 1.5 |
| 1954 | | | | | | | | |
| 1955 | | | | | | | 15.0 | 0.0 |
| 1956 | | | | | | | | |
| 1957 | | | | | | | | |
| 1958 | | | | | | | | |
| 1959 | | | | | | | | |
| 1960 | | | | | | | | |
| 1961 | | | | | | | | |
| 1962 | 129.0 | 12.0 | 85.0 | 36.0 | 13.3 | 1.0 | 10.6 | 2.0 |
| 1963 | 127.5 | 0.0 | 124.0 | 4.5 | 11.0 | 1.0 | 3.5 | 0.0 |
| 1964 | 60.0 | 10.0 | 65.5 | | 12.0 | 0.9 | 13.2 | 0.0 |
| 1965 | 48.0 | 5.9 | 89.1 | 0.0 | 5.3 | 0.0 | 1.4 | 0.0 |
| 1966 | 9.7 | 2.0 | 94.5 | 1.0 | 18.4 | 0.2 | 15.5 | 0.0 |
| 1967 | 9.0 | 1.0 | 35.0 | 7.0 | 4.7 | 0.0 | 2.4 | 0.0 |
| 1968 | 39.0 | | 85.0 | 0.0 | 14.2 | 0.0 | 7.8 | 0.0 |
| 1969 | 77.0 | 0.0 | 302.0 | 0.0 | 14.2 | 0.1 | 6.5 | 0.0 |
| 1970 | 69.0 | 0.0 | 103.0 | 17.0 | 14.5 | 3.0 | 10.5 | 0.0 |
| 1971 | 8.0 | 0.0 | 205.0 | 90.0 | 30.0 | 5.2 | 7.0 | 0.0 |
| 1972 | 2.5 | 4.5 | 4.4 | 13.0 | 0.6 | 0.6 | 0.2 | 0.0 |
| 1973 | 1.6 | 1.0 | 43.8 | 17.2 | 7.5 | 0.3 | 0.8 | 0.2 |
| 1974 | 62.8 | 5.1 | 3.9 | 22.3 | 2.1 | 0.3 | 1.7 | 0.0 |
| 1975 | 21.0 | 4.5 | 96.0 | 24.5 | 9.8 | 0.0 | 4.5 | 0.0 |
| 1976 | 70.3 | 13.4 | 17.3 | 22.1 | 7.0 | 1.1 | 9.3 | 1.9 |
| 1977 | 78.5 | 0.0 | 236.0 | 36.0 | 18.3 | 0.8 | 5.7 | 0.1 |
| 1978 | 218.5 | 0.1 | 73.7 | 0.8 | 16.6 | 2.0 | 7.5 | 0.1 |
| 1979 | 50.2 | 2.0 | 90.0 | 32.0 | 9.6 | 0.4 | 7.1 | 1.0 |
| 1980 | 53.0 | 12.5 | 51.0 | 22.1 | 3.5 | 1.0 | 4.5 | 0.9 |
| 1981 | 84.9 | 3.0 | 117.0 | 28.0 | 10.0 | 4.6 | 6.7 | 0.8 |
| 1982 | 30.5 | 3.3 | 21.0 | 16.3 | 1.4 | 2.8 | 0.1 | 0.4 |
| 1983 | 17.8 | 0.5 | 12.2 | 7.2 | 1.2 | 1.1 | 0.8 | 0.0 |
| 1984 | 60.2 | 6.5 | 103.0 | 40.0 | 6.0 | 1.8 | 0.3 | 0.1 |
| 1985 | 3.5 | 0.5 | 49.6 | 23.3 | 5.9 | 1.7 | 0.3 | 0.0 |
| 1986 | 22.0 | 0.0 | 10.1 | 0.0 | 4.9 | 0.0 | 0.5 | 0.0 |
| 1987 | 13.4 | 0.4 | 14.8 | 2.4 | 6.6 | 1.0 | 0.0 | 0.0 |
| 1988 | 135.6 | 10.6 | 57.0 | 5.6 | 13.0 | 0.9 | 3.1 | 0.3 |
| 1989 | 2.9 | 1.5 | 32.0 | 0.8 | 10.8 | 0.6 | 1.7 | 0.1 |
| 1990 | 7.5 | 0.8 | 23.1 | 14.3 | 8.2 | 0.2 | 0.8 | 2.0 |
| 1991 | 53.6 | 0.0 | 42.2 | 3.1 | 0.0 | 4.9 | 0.0 | 1.7 |

-Continued-

Table 48. (page 7 of 8)

| Year | Portage | | Seal Bay | | Kupreanof | | Smokey Hollow | |
|------|---------|------|----------|------|-----------|------|---------------|------|
| | 273-842 | | 273-843 | | 275-401 | | 275-402 | |
| | Pink | Chum | Pink | Chum | Pink | Chum | Pink | Chum |
| 1953 | 5.3 | 0.5 | 2.0 | 2.0 | | | | |
| 1954 | | | | | | | | |
| 1955 | 0.0 | 20.0 | 0.0 | 0.6 | | | | |
| 1956 | | | | | | | | |
| 1957 | | | | | | | | |
| 1958 | | | | | | | | |
| 1959 | | | | | | | | |
| 1960 | | | | | | | | |
| 1961 | | | | | | | | |
| 1962 | 0.0 | 23.8 | 0.0 | 1.8 | 12.2 | 0.0 | 3.6 | 3.9 |
| 1963 | 27.0 | 4.4 | 6.0 | 0.0 | 3.5 | 0.0 | 1.5 | 2.0 |
| 1964 | 0.0 | 20.4 | 1.3 | 0.0 | 13.0 | 1.1 | 0.8 | 17.0 |
| 1965 | 1.7 | 8.3 | 3.3 | 0.0 | 3.0 | 0.0 | 0.0 | 0.5 |
| 1966 | 24.4 | 8.9 | 4.0 | 0.0 | | | 0.0 | 7.4 |
| 1967 | 28.5 | 15.0 | 6.0 | 0.5 | 6.7 | 0.0 | 0.0 | 0.3 |
| 1968 | 3.3 | 5.0 | 2.5 | 0.0 | 14.0 | 0.0 | 0.0 | 0.9 |
| 1969 | 0.1 | 27.5 | 7.5 | 0.0 | 6.8 | 0.2 | 0.0 | 0.2 |
| 1970 | 9.0 | 27.6 | 5.2 | 0.0 | 11.0 | 0.0 | 0.0 | 2.5 |
| 1971 | 10.2 | 60.1 | 5.0 | 10.1 | 3.5 | 0.0 | 0.0 | 1.5 |
| 1972 | 0.1 | 21.4 | 0.0 | 11.1 | 1.0 | 0.5 | 0.0 | 2.0 |
| 1973 | 2.9 | 18.1 | 2.0 | 0.1 | 0.2 | 0.5 | 0.2 | 0.6 |
| 1974 | 0.0 | 8.7 | 1.2 | 1.0 | 1.2 | 0.5 | 0.4 | 0.8 |
| 1975 | 0.4 | 9.2 | 5.3 | 2.3 | 1.0 | 0.1 | 0.1 | 0.1 |
| 1976 | 0.9 | 8.5 | 0.6 | 4.6 | 4.0 | 0.0 | 0.6 | 0.8 |
| 1977 | 5.0 | 20.5 | 3.1 | 5.2 | 5.1 | 0.0 | 2.3 | 1.6 |
| 1978 | 4.1 | 19.0 | 1.5 | 1.4 | 16.1 | 0.0 | 0.5 | 0.5 |
| 1979 | 17.7 | 4.5 | 0.2 | 0.6 | 28.0 | 0.0 | 0.6 | 0.4 |
| 1980 | 10.2 | 18.5 | 1.0 | 0.5 | 11.6 | 0.0 | 0.5 | 0.3 |
| 1981 | 6.5 | 33.3 | 9.0 | 0.0 | 22.5 | 0.1 | 1.5 | 0.0 |
| 1982 | 0.0 | 6.3 | 0.0 | 3.5 | 5.5 | 0.0 | 0.0 | 0.0 |
| 1983 | 0.3 | 7.3 | 0.8 | 0.0 | 3.5 | 0.0 | 0.2 | 2.6 |
| 1984 | 1.0 | 14.6 | 4.6 | 5.5 | 5.2 | 0.0 | 0.3 | 1.4 |
| 1985 | 0.0 | 9.1 | 7.3 | 0.0 | | | 0.2 | 0.0 |
| 1986 | 0.7 | 5.0 | 0.0 | 0.1 | | | 0.5 | 0.1 |
| 1987 | 0.0 | 10.2 | 0.5 | 3.9 | | | 1.4 | 0.1 |
| 1988 | 4.0 | 6.1 | 0.0 | 0.8 | 5.1 | 0.0 | 0.9 | 1.0 |
| 1989 | 1.2 | 1.6 | 1.7 | 0.8 | 4.2 | 0.1 | 9.4 | 0.1 |
| 1990 | 0.9 | 8.9 | 0.0 | 2.2 | 13.5 | 0.0 | 1.3 | 1.5 |
| 1991 | 0.0 | 22.0 | 0.0 | 3.4 | 7.1 | 0.0 | 0.0 | 10.0 |

-Continued-

Table 48. (page 8 of 8)

| Year | Wasco's Creek | | Ivanof River | | Humpback Cr. | |
|------|---------------|------|--------------|-------|--------------|------|
| | 275-404 | | 275-406 | | 275-502 | |
| | Pink | Chum | Pink | Chum | Pink | Chum |
| 1953 | | | | | | |
| 1954 | | | | | | |
| 1955 | | | | | | |
| 1956 | | | | | | |
| 1957 | | | | | | |
| 1958 | | | | | | |
| 1959 | | | | | | |
| 1960 | | | | | | |
| 1961 | | | | | | |
| 1962 | 23.0 | 0.0 | 48.5 | 2.5 | 64.5 | 3.0 |
| 1963 | 1.0 | 0.0 | 128.0 | 4.0 | 26.4 | 0.4 |
| 1964 | 0.0 | 6.5 | 15.0 | 0.8 | 40.7 | 0.2 |
| 1965 | 2.0 | 0.0 | 61.4 | 5.5 | 13.8 | 0.0 |
| 1966 | 10.5 | 0.0 | 39.5 | 9.0 | 30.0 | 0.0 |
| 1967 | 2.0 | 0.0 | 98.5 | 3.0 | 36.7 | 0.0 |
| 1968 | 0.3 | 0.0 | 60.0 | 0.5 | 52.3 | 0.0 |
| 1969 | 4.0 | 0.0 | 122.4 | 0.5 | 75.0 | 0.0 |
| 1970 | 2.5 | 0.0 | 51.0 | 10.0 | 31.0 | 0.0 |
| 1971 | 3.0 | 4.0 | 25.0 | 21.0 | 13.4 | 1.5 |
| 1972 | 0.3 | 0.0 | 6.3 | 7.8 | 0.5 | 1.0 |
| 1973 | 0.0 | 0.0 | 24.7 | 8.2 | 6.1 | 0.6 |
| 1974 | 6.3 | 1.9 | 41.9 | 8.1 | 10.2 | 0.7 |
| 1975 | 0.9 | 0.0 | 33.4 | 15.0 | 9.2 | 3.5 |
| 1976 | 6.2 | 0.2 | 55.0 | 6.8 | 20.3 | 0.7 |
| 1977 | 1.6 | 0.5 | 51.8 | 9.0 | 48.2 | 1.2 |
| 1978 | 9.7 | 0.0 | 71.5 | 4.2 | 51.0 | 0.2 |
| 1979 | 2.0 | 0.1 | 89.0 | 7.1 | 59.0 | 5.0 |
| 1980 | 0.0 | 3.0 | 40.5 | 22.7 | 18.7 | 3.1 |
| 1981 | 0.0 | 0.2 | 39.9 | 17.0 | 46.5 | 2.0 |
| 1982 | 0.1 | 2.3 | 2.7 | 9.4 | 4.8 | 11.0 |
| 1983 | 2.0 | 0.0 | 34.3 | 5.6 | 17.8 | 0.0 |
| 1984 | 14.6 | 1.4 | 61.0 | 42.5 | 18.3 | 0.7 |
| 1985 | 0.3 | 0.0 | 181.6 | 10.6 | 36.8 | 0.3 |
| 1986 | 10.0 | 0.0 | 150.0 | 7.6 | 12.0 | 0.0 |
| 1987 | 11.9 | 0.1 | 24.7 | 6.9 | 15.5 | 0.8 |
| 1988 | 14.0 | 1.1 | 126.0 | 30.6 | 30.8 | 0.4 |
| 1989 | 3.8 | 0.3 | 161.0 | 4.0 | 51.0 | 0.5 |
| 1990 | 0.5 | 4.4 | 47.3 | 33.7 | 7.4 | 0.5 |
| 1991 | 0.0 | 0.1 | 118.3 | 332.9 | 128.8 | 0.0 |

^aEscapements from 1953-1984 are based on index estimates described by Shaul and Schwarz (1989) and from 1985-1991 estimates are based on area-under-the-curve methodology described by Johnson and Barrett (1988).

Table 49. Subsistence harvest of salmon in the Chignik Management Area, 1976-1991.^a

| Subsistence Harvest | | | | | | |
|---------------------|---------|---------|-------|-------|-------|--------|
| Year | Chinook | Sockeye | Coho | Pink | Chum | Total |
| 1976 | 100 | 6,000 | 1,500 | 500 | 150 | 8,250 |
| 1977 | 50 | 9,700 | 2,400 | 1,800 | 600 | 14,550 |
| 1978 | 50 | 6,000 | 500 | 2,100 | 600 | 9,250 |
| 1979 | 14 | 7,750 | 34 | 262 | 0 | 8,060 |
| 1980 | 9 | 7,831 | 27 | 400 | 141 | 8,408 |
| 1981 | 100 | 5,840 | 0 | 0 | 0 | 5,940 |
| 1982 | 2 | 2,320 | 8 | 1 | 0 | 2,331 |
| 1983 | 0 | 3,438 | 1,880 | 1,680 | 1,136 | 8,134 |
| 1984 | 26 | 8,222 | 553 | 403 | 247 | 9,451 |
| 1985 | 1 | 7,615 | 60 | 32 | 0 | 7,708 |
| 1986 | 6 | 10,356 | 261 | 121 | 95 | 10,839 |
| 1987 | 10 | 7,021 | 278 | 204 | 261 | 7,774 |
| 1988 | 3 | 8,848 | 1,817 | 79 | 158 | 10,905 |
| 1989 | 20 | 12,325 | 1,200 | 150 | 148 | 13,843 |
| 1990 | 112 | 9,733 | 566 | 1,332 | 295 | 12,038 |
| 1991 | 29 | 12,649 | 14 | 373 | 115 | 13,180 |
| Average | 33 | 7,853 | 694 | 590 | 247 | 9,416 |

^aSubsistence harvests are estimated by expanding results of returned permits to total number of permits issued.

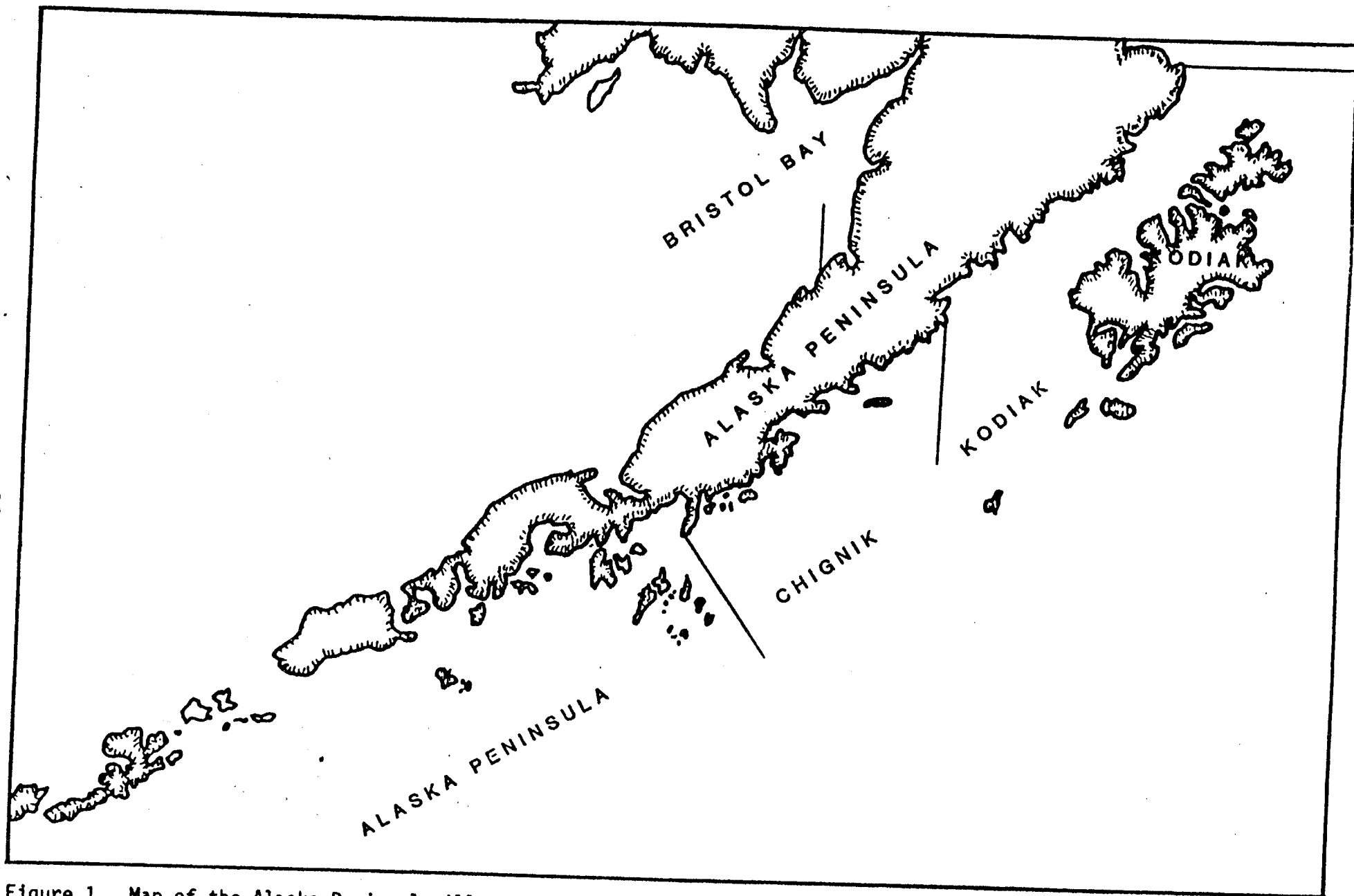


Figure 1. Map of the Alaska Peninsula illustrating the relative location of the Chignik Management Area.

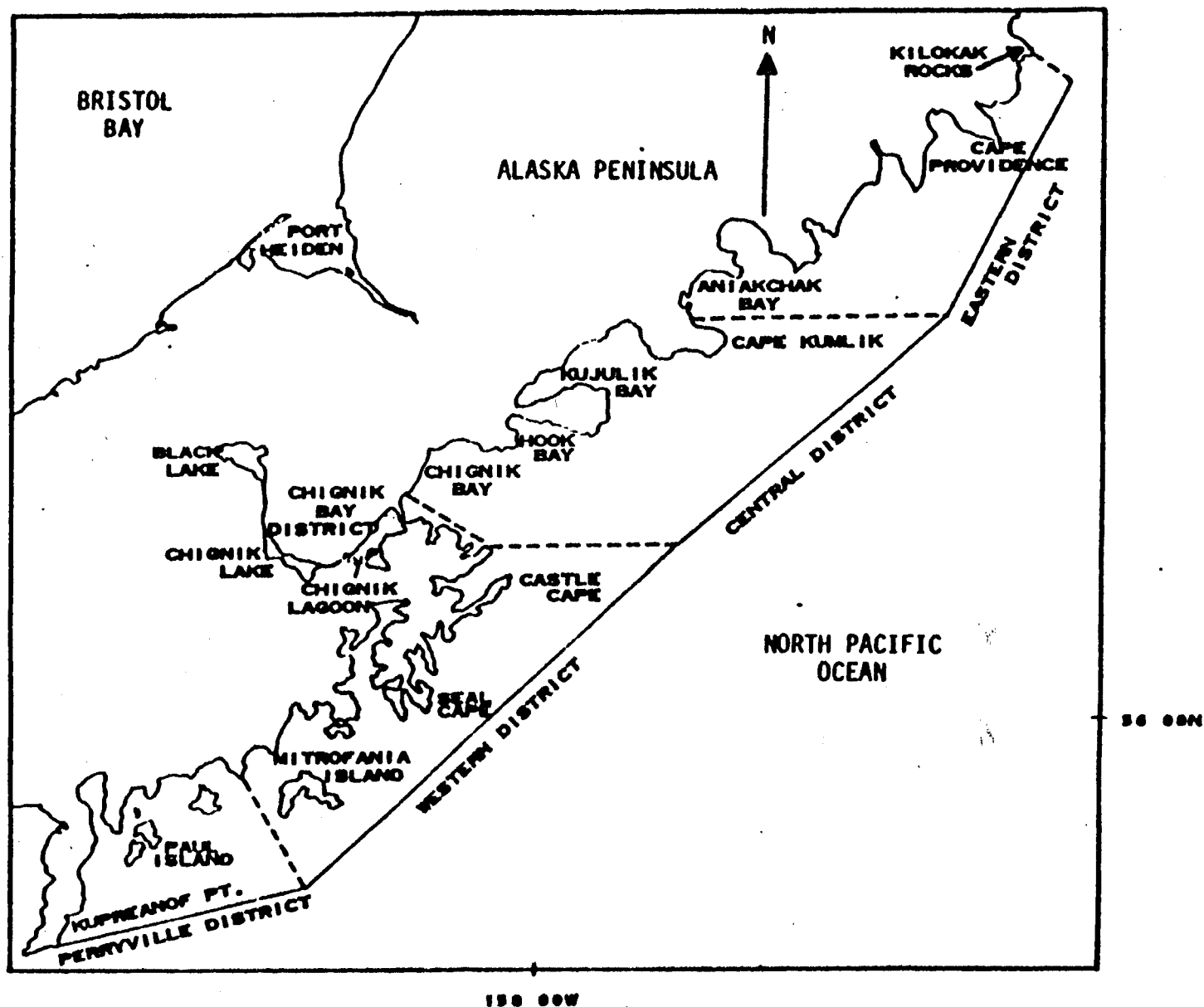


Figure 2. Map of the Chignik Management Area with the statistical fishing districts and some prominent locations identified.

CHIGNIK LAKES WATERSHED

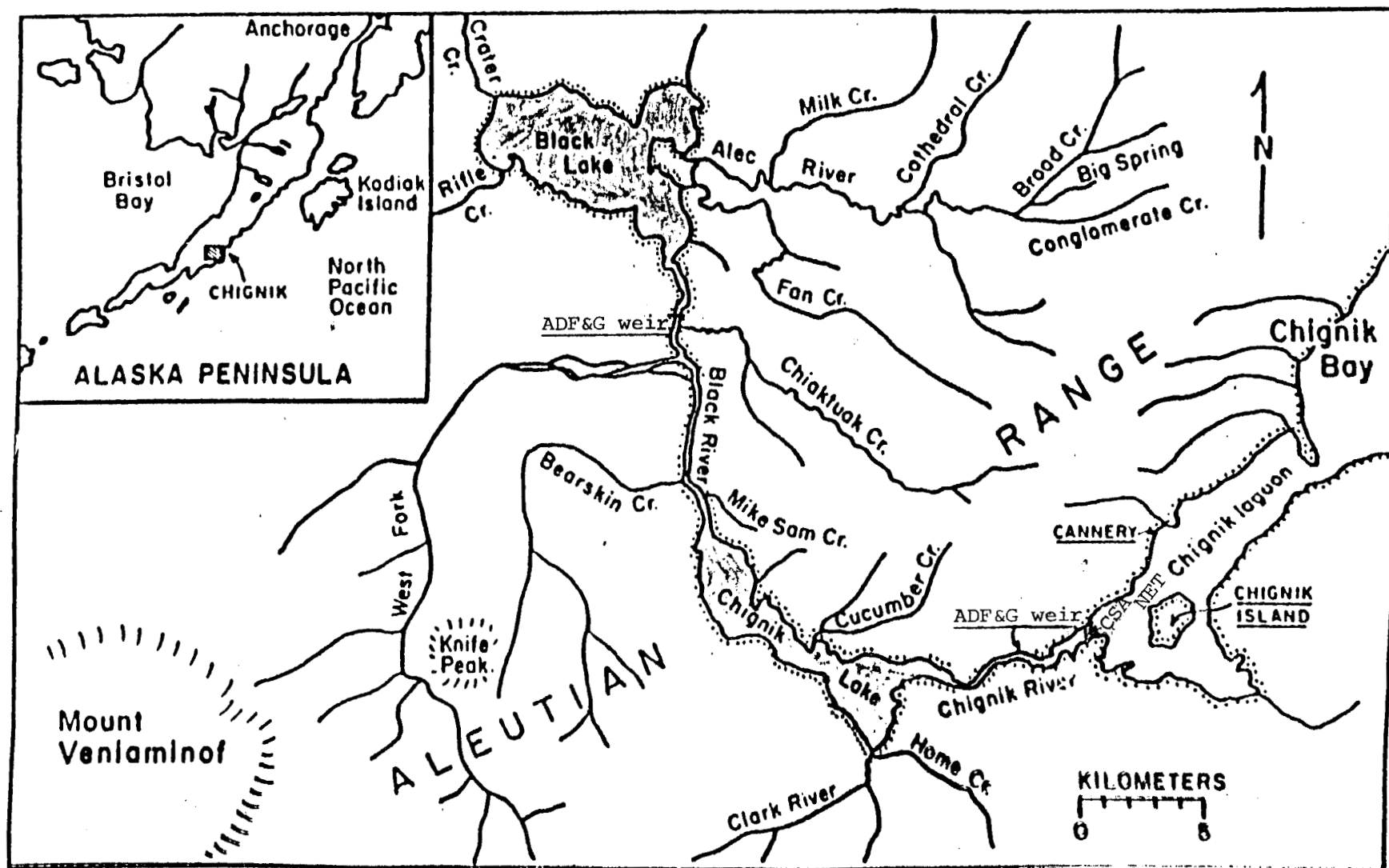


Figure 3. Map of the Chignik Management Area illustrating major spawning areas, 1991

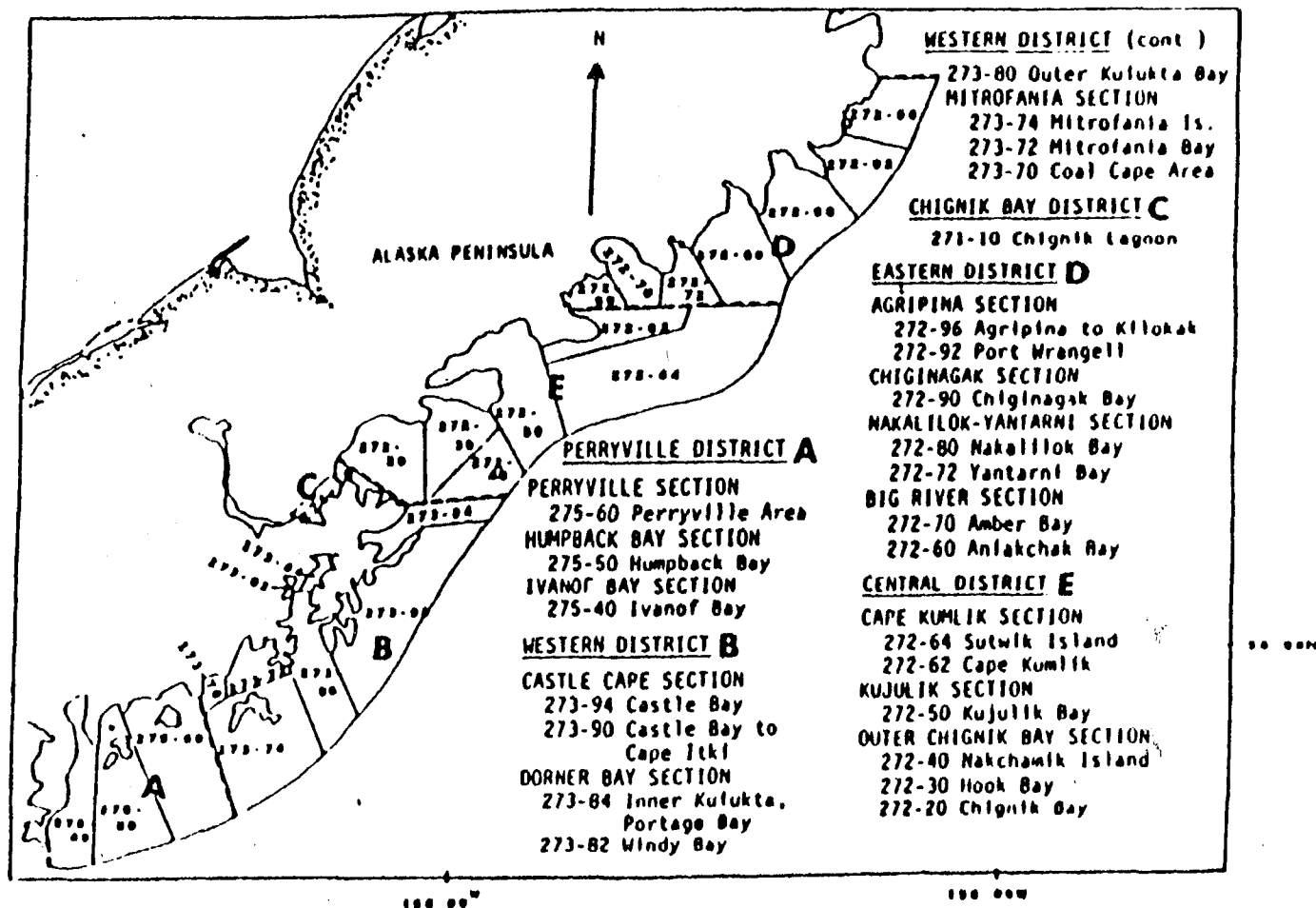


Figure 4. Map of the Chignik Management Area illustrating statistical areas, 1991

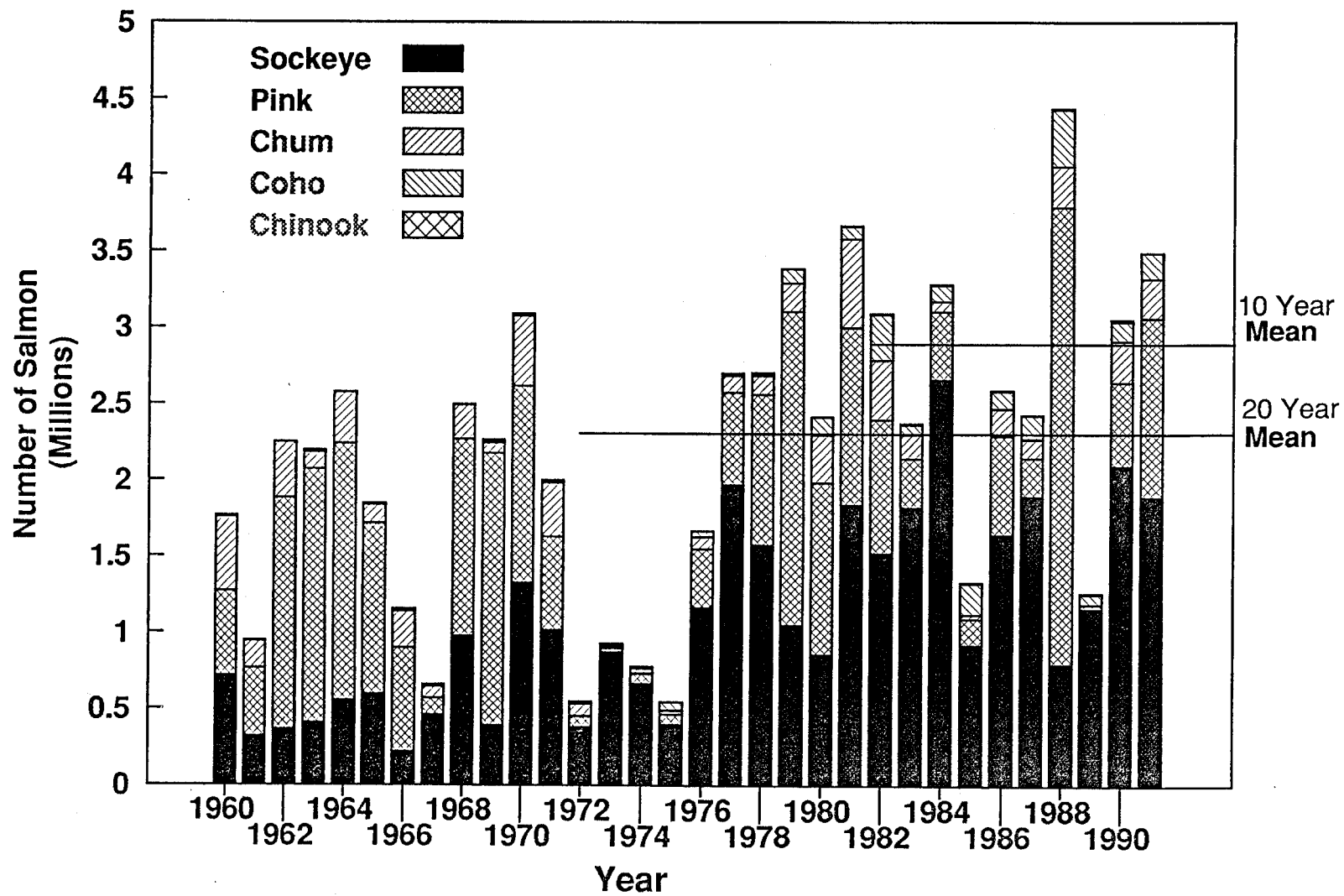


Figure 5. Chignik Management Area total salmon harvests by species, 1960 - 1991.

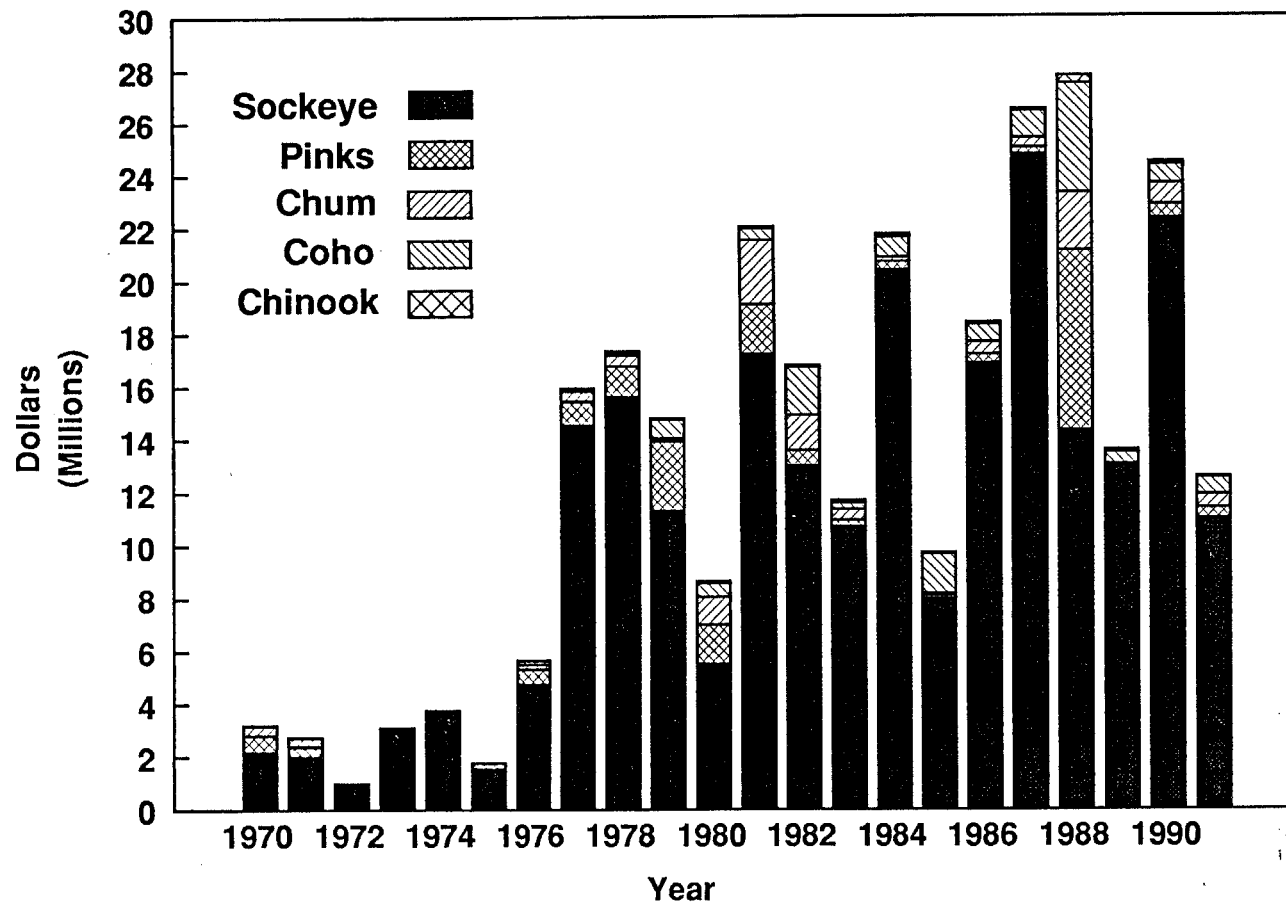


Figure 6. Exvessel value of Chignik Management Area salmon harvests 1970 - 1991.

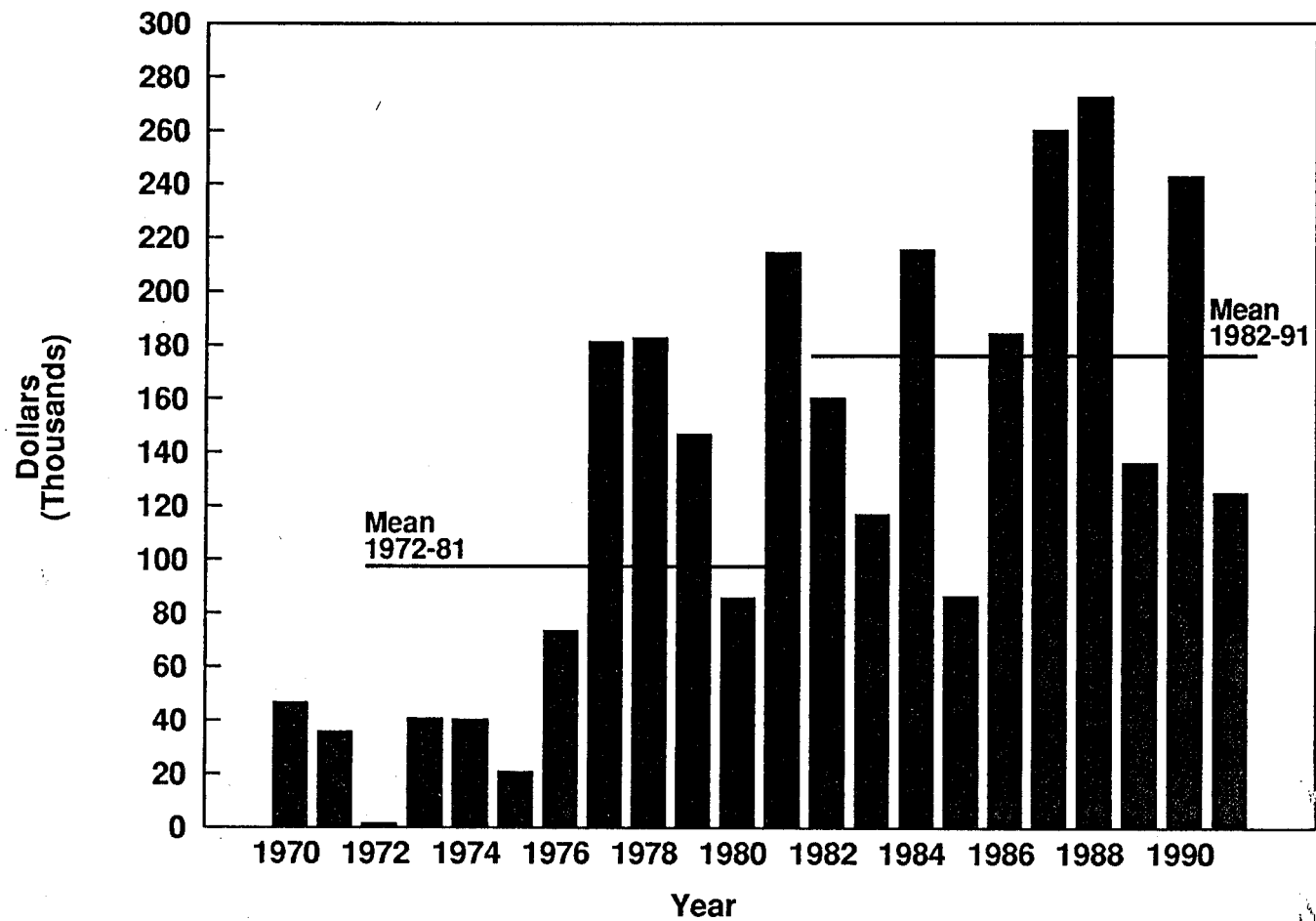


Figure 7. Average income per permit holder in the Chignik Management Area, 1970 - 1991.

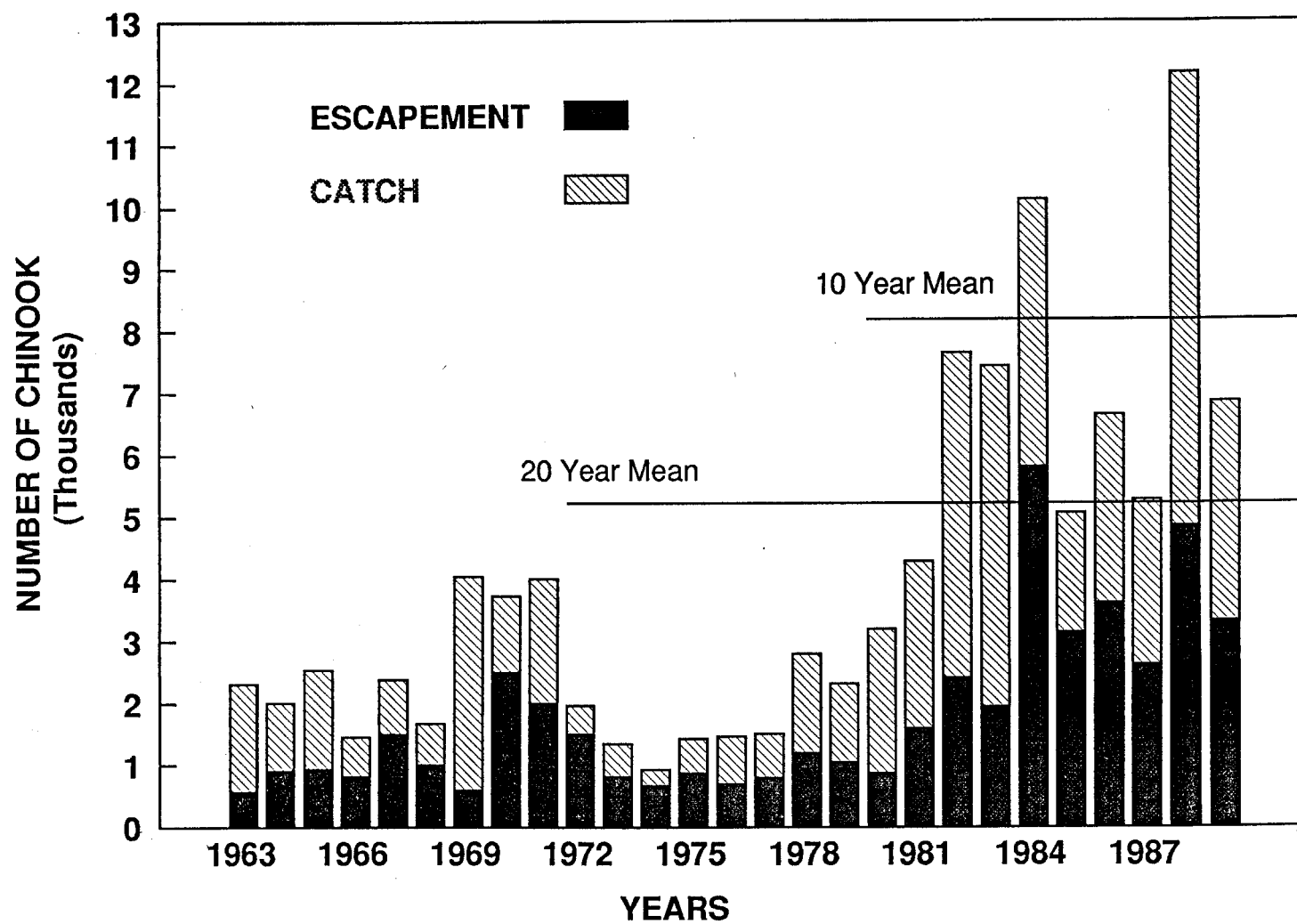


Figure 8. Chignik Management Area chinook catch and escapement, 1963 - 1991.

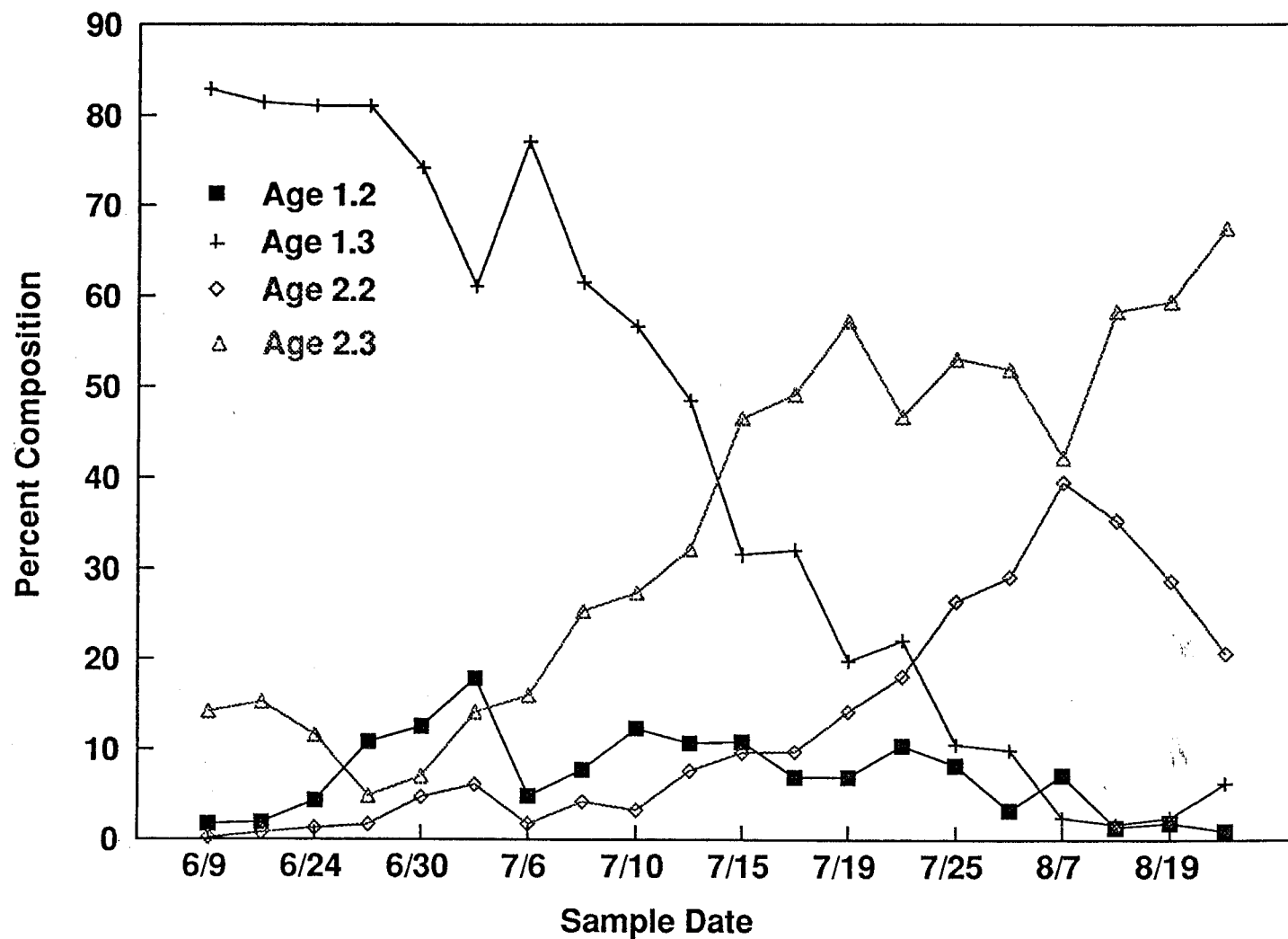


Figure 9. Age composition of sockeye salmon sampled in the Chignik Lagoon fishery, 1991.

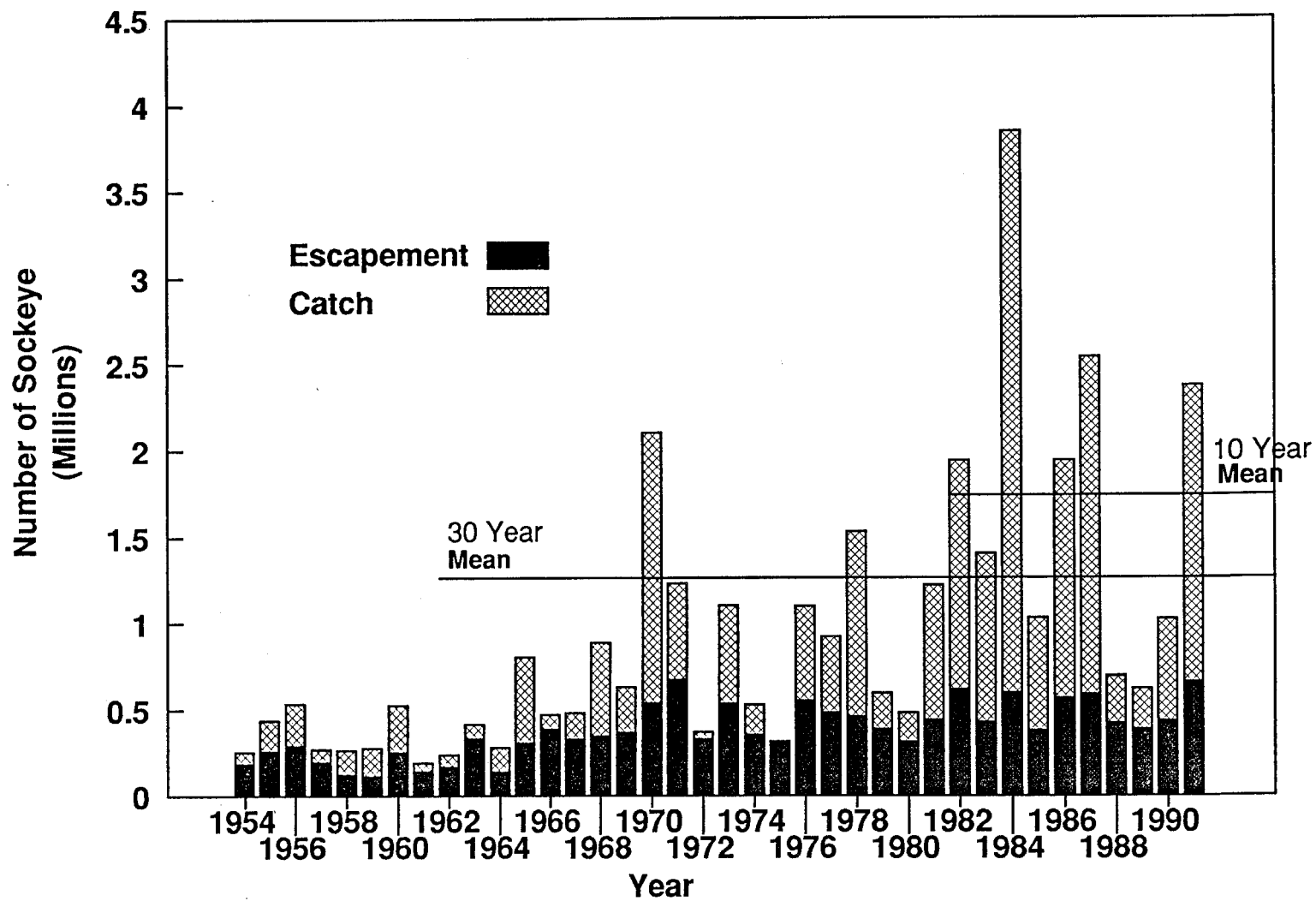


Figure 10. Black Lake sockeye run catch and escapement, 1954 - 1991.

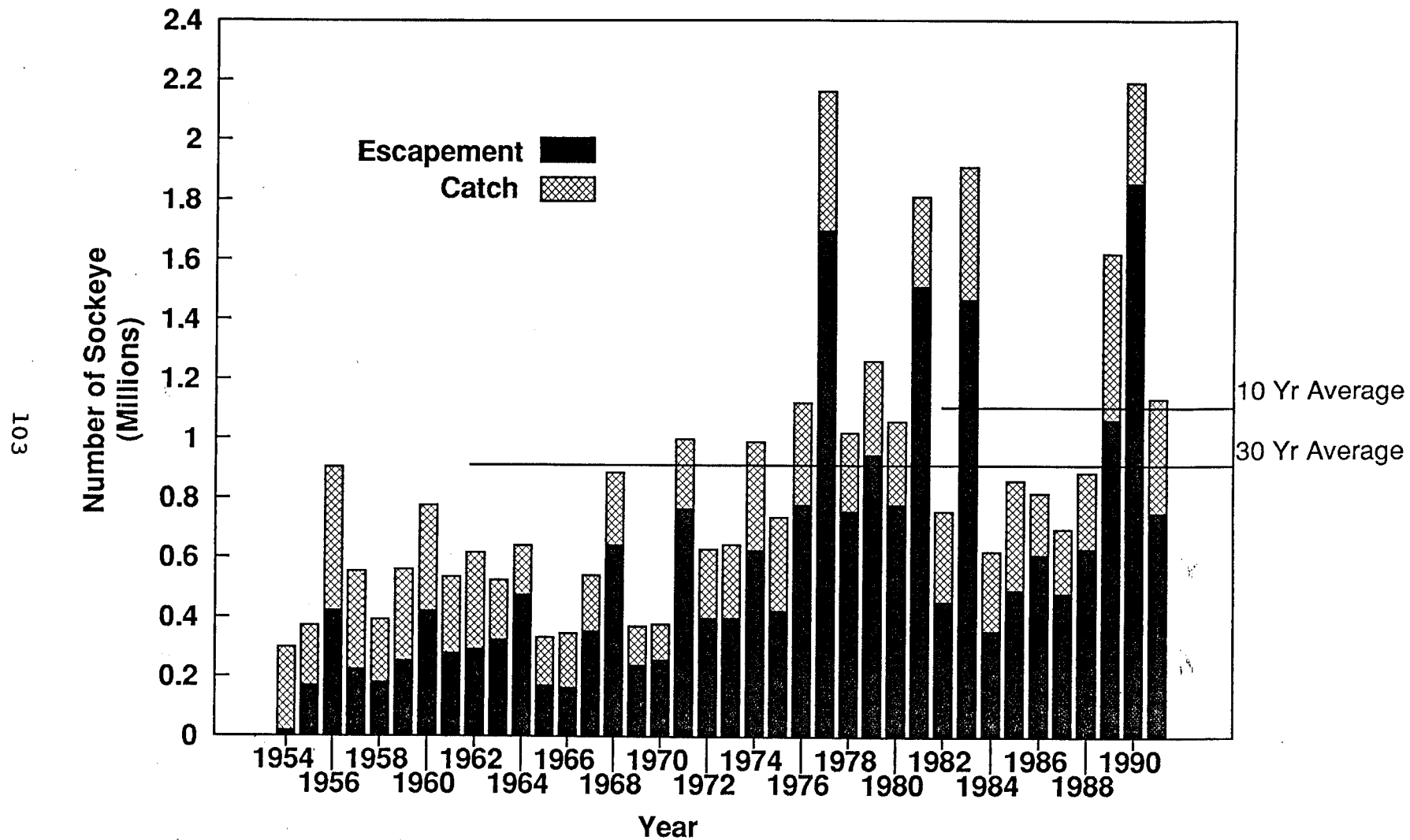


Figure 11. Chignik Lake sockeye salmon run catch and escapement, 1954 - 1991.

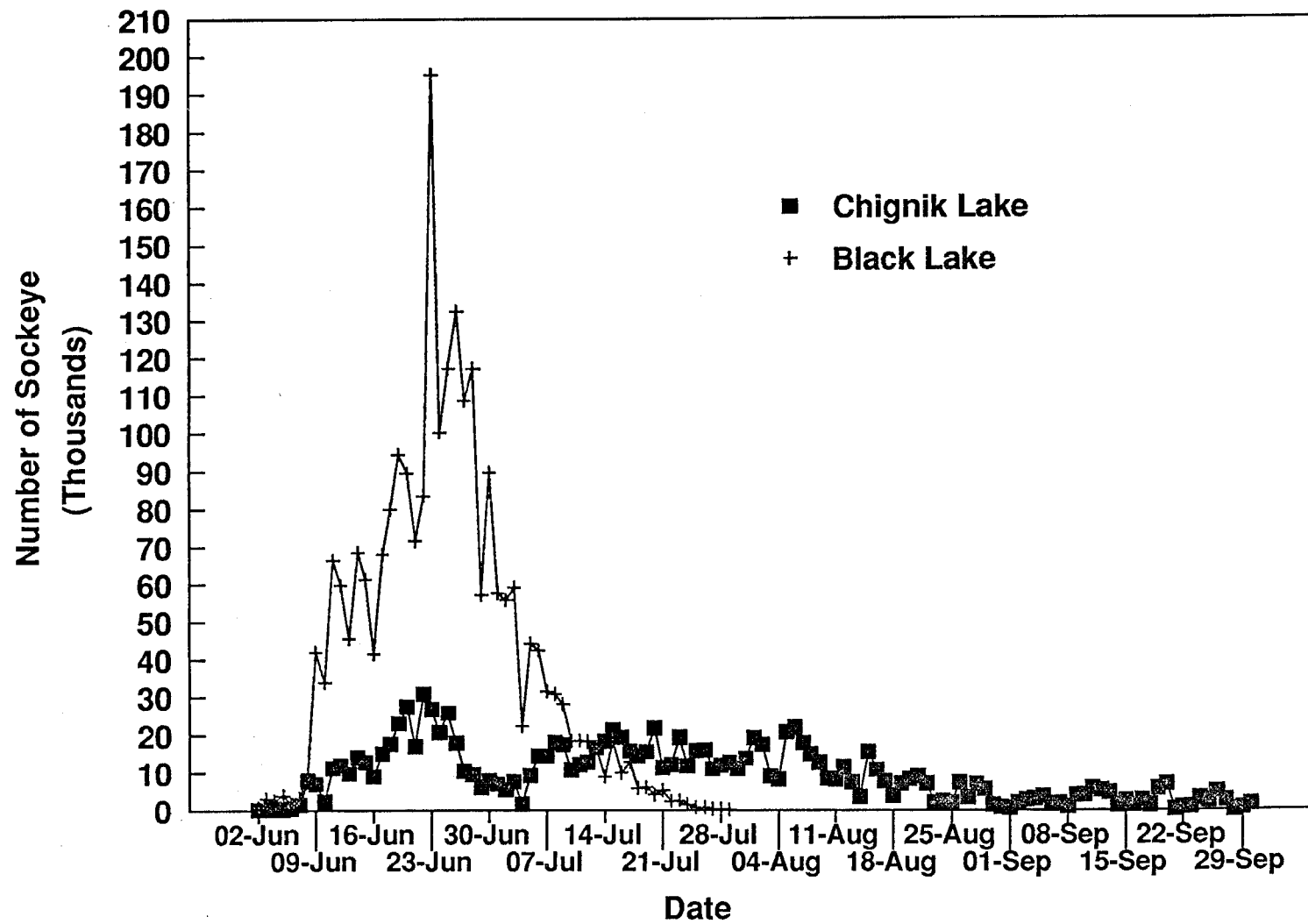


Figure 12. Daily sockeye salmon run by stock to the Chignik Lake system as estimated by scale pattern analysis, 1991.

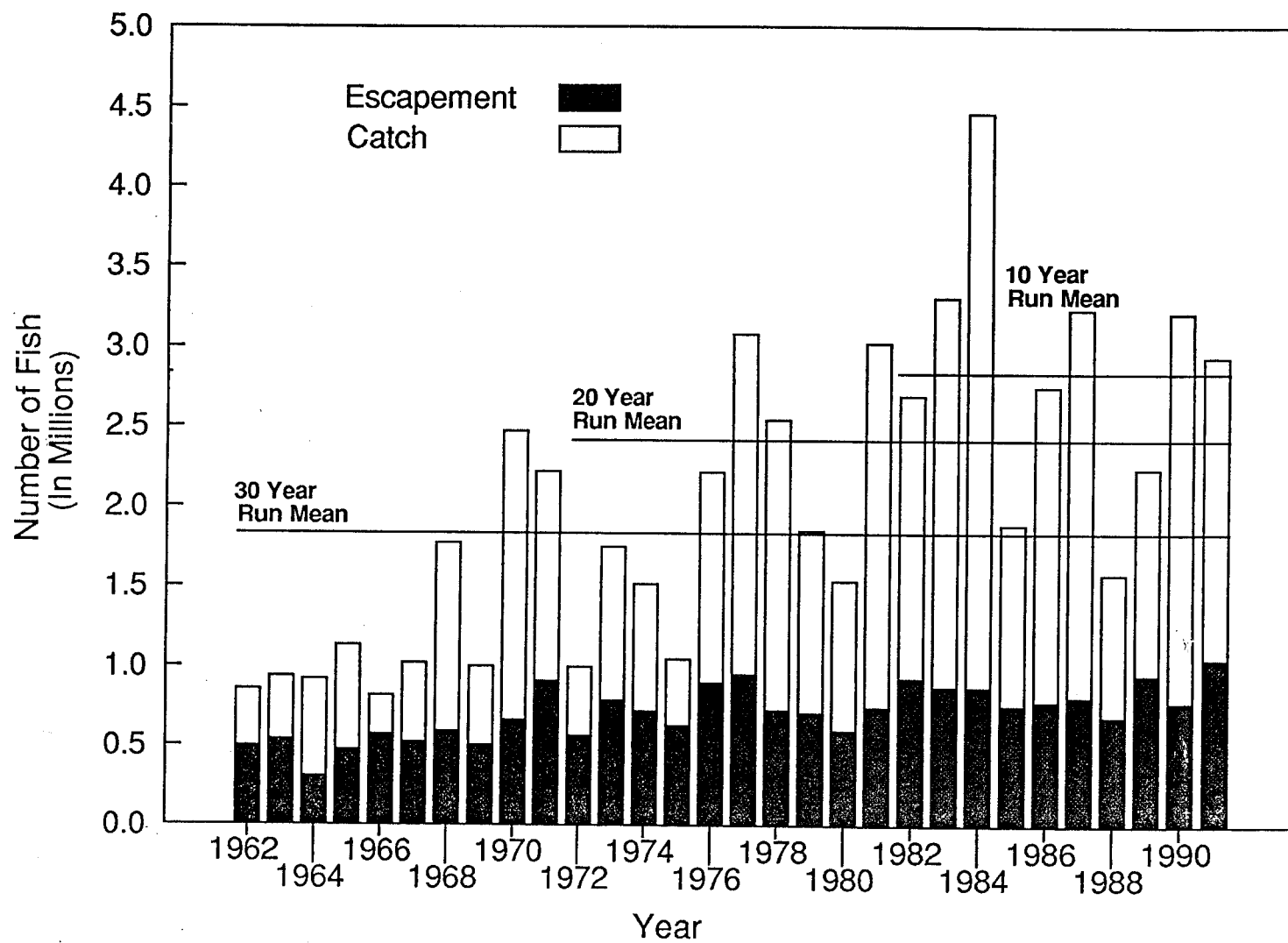


Figure 13. Total Chignik Lake system sockeye salmon catch and escapement, 1954 - 1991.

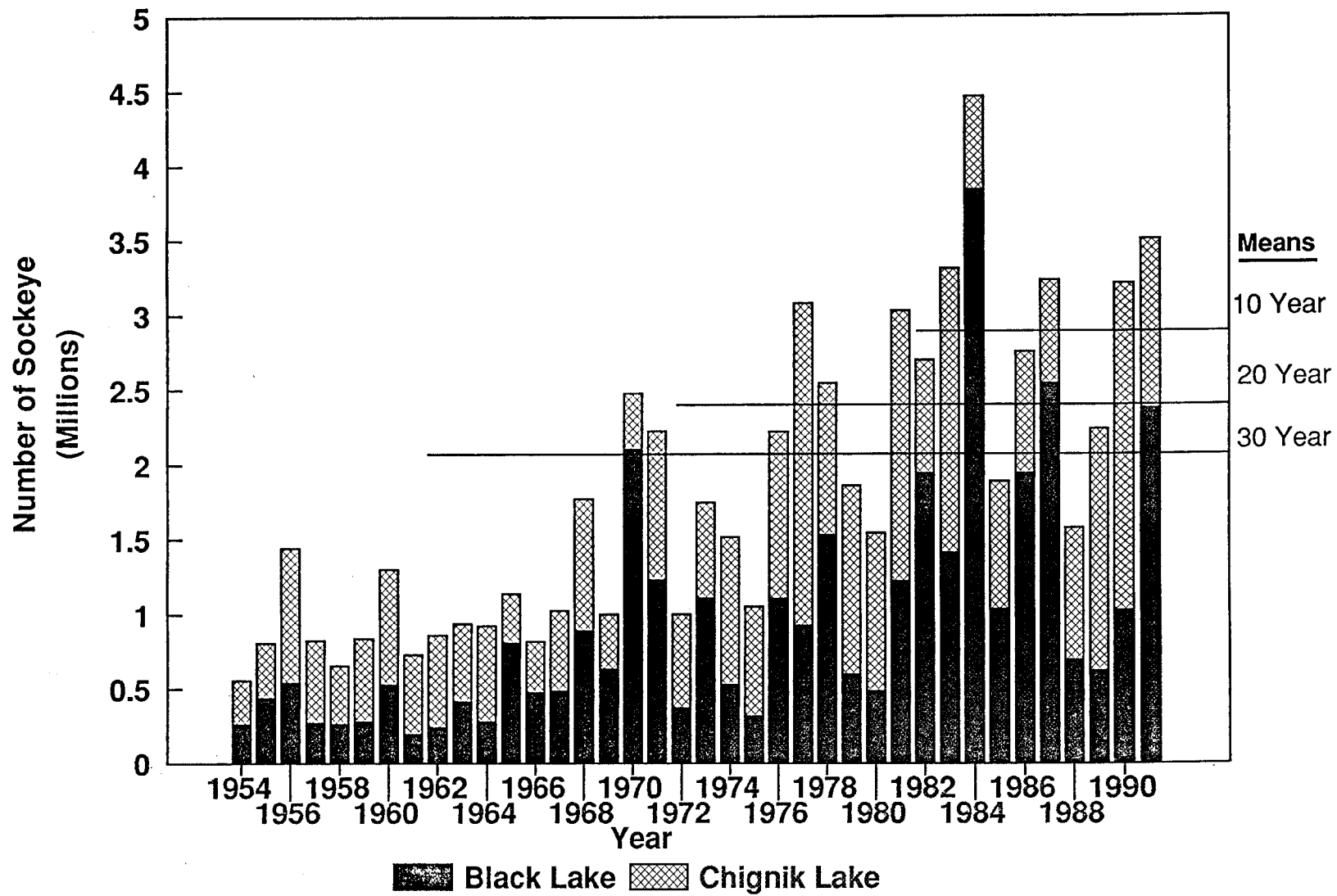


Figure 14. Total sockeye salmon runs to Black and Chignik Lakes, 1954 - 1991.

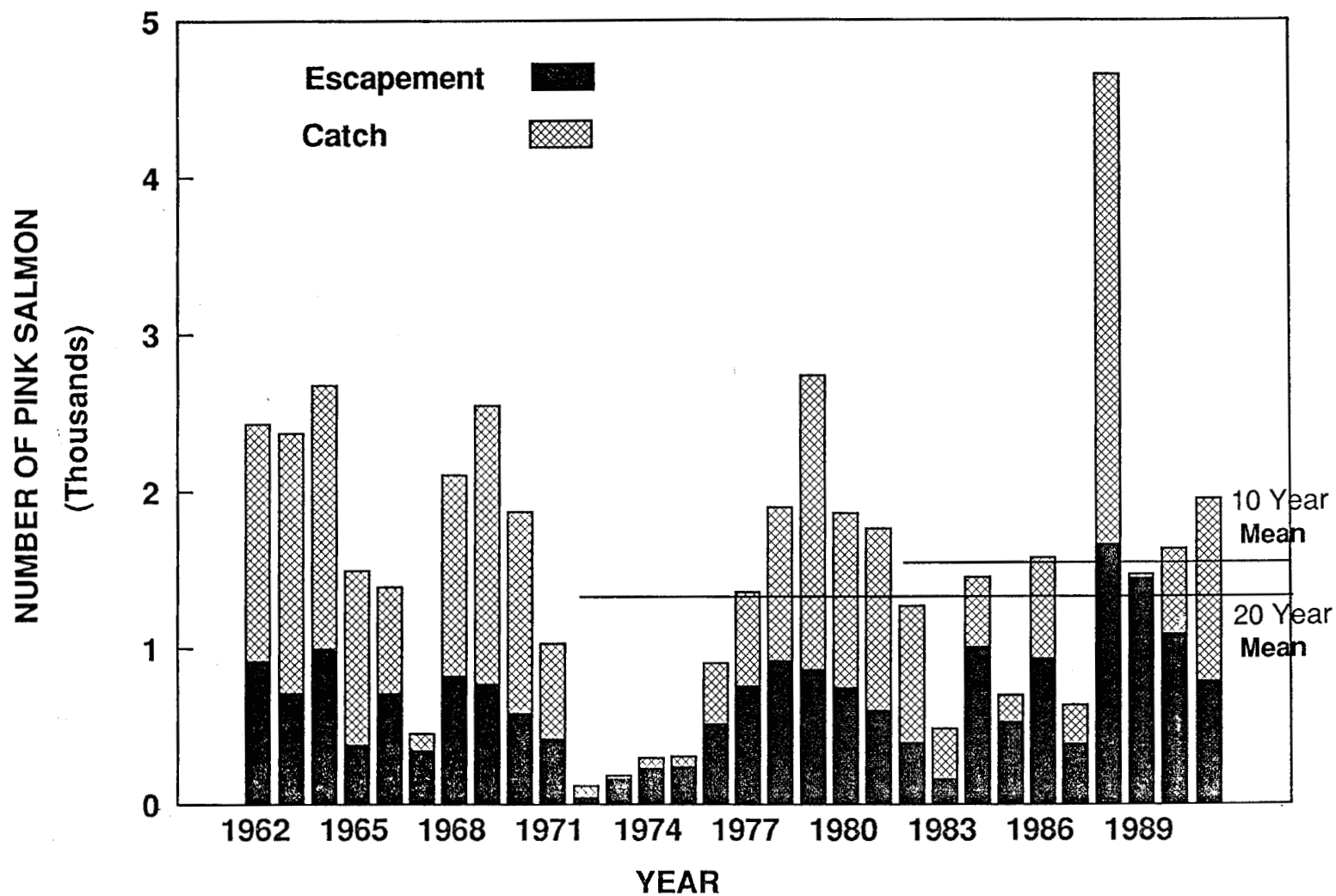


Figure 15. Chignik Management Area pink salmon catch and escapement, 1961 - 1991.

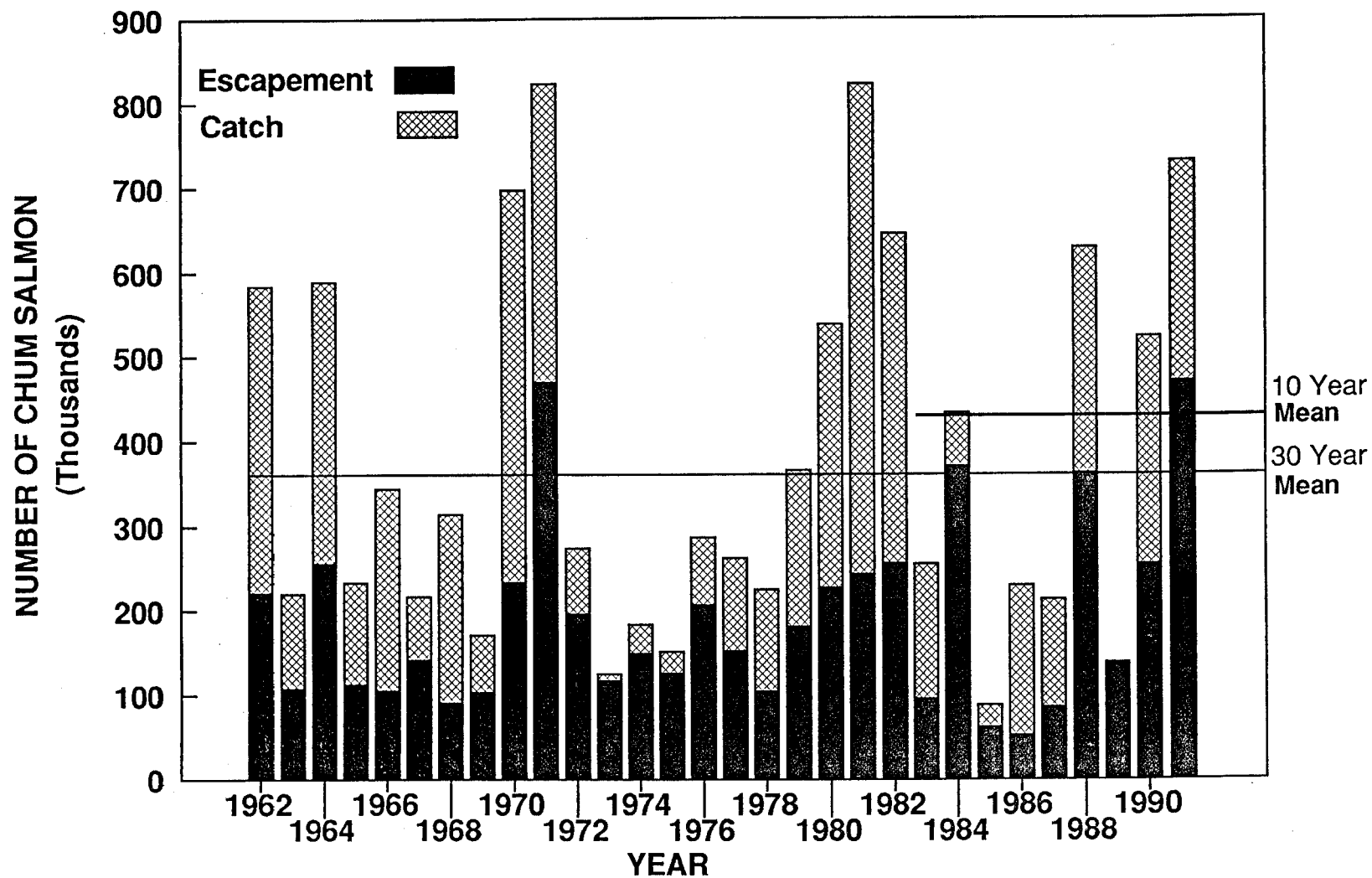


Figure 16. Chignik Management Area chum salmon catch and escapement, 1962 - 1991.

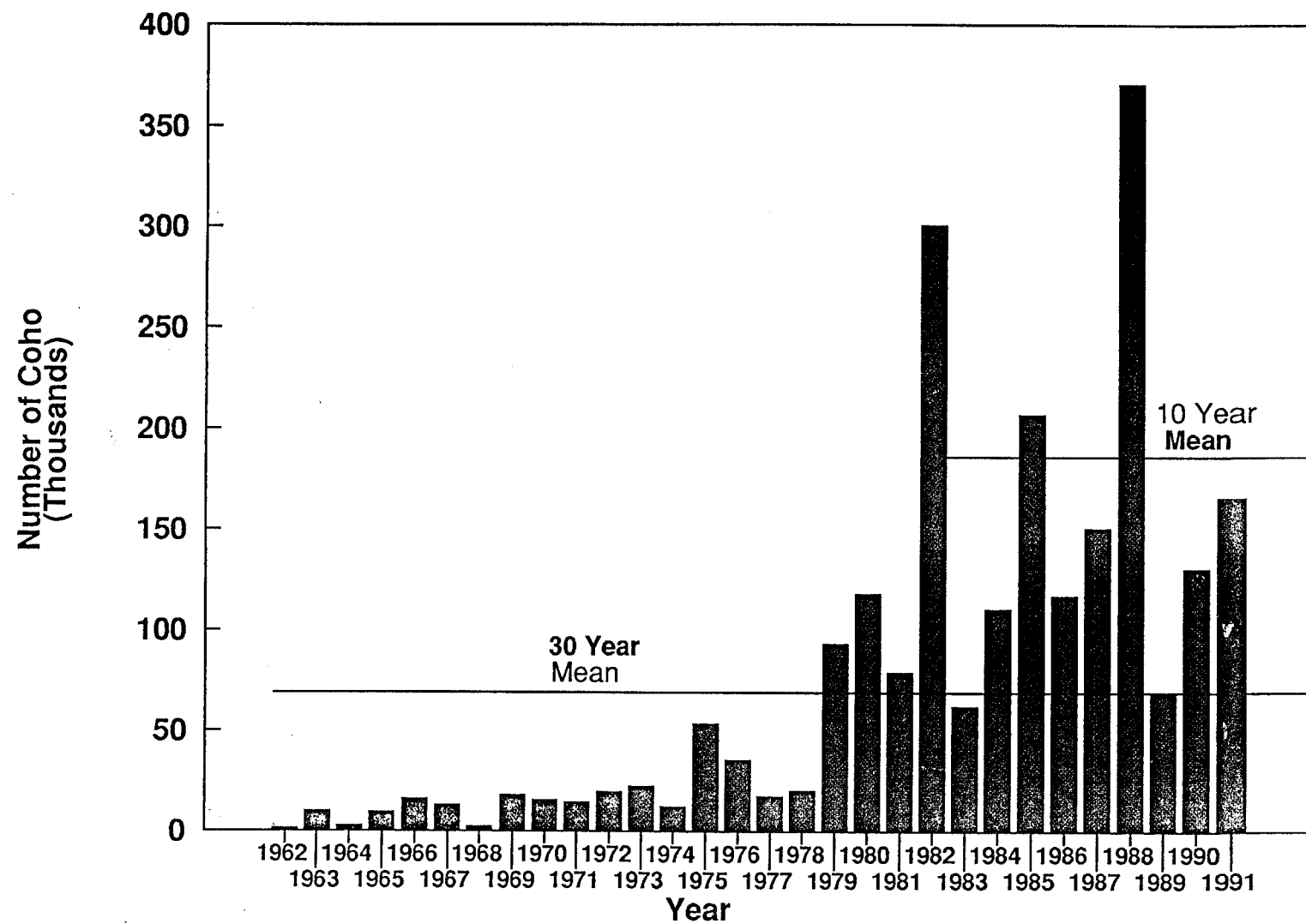


Figure 17. Chignik Management Area coho salmon catch, 1960 - 1991.

APPENDIX A

*Chignik Management Area preliminary 1990 season summary
and 1991 season forecast*

FORECAST AREA: Chignik Management Area

PRELIMINARY 1990 SEASON SUMMARY

Sockeye Return

Total Escapement: 712,638¹ + 57,772² = 770,410
Chignik Harvest: 2,093,650
Igvak Harvest (Chignik origin): 132,404³
Stepovak Harvest (Chignik origin): 216,945³

Total Return: 3,213,410

-
- 1 Weir counts
2 Estimated escapement after weir was removed
3 Catches for entire season

PRELIMINARY FORECAST OF THE 1991 RETURN

| <u>Early Run</u> (Black Lake stocks) | <u>Point</u> | <u>80% Prediction Range</u> |
|---------------------------------------|--------------|-----------------------------|
| Escapement Goal: | 400,000 | |
| Harvest Estimate: | 2,363,300 | |
| Return Estimate: | 2,763,300 | 2.34 to 3.18 million |
| <u>Late Run</u> (Chignik Lake stocks) | <u>Point</u> | <u>80% Prediction Range</u> |
| Escapement Goal: | 250,000 | |
| Harvest Estimate: | 890,000 | |
| Return Estimate: | 1,140,000 | 0.91 to 1.37 million |
| <u>Total Chignik Run</u> | <u>Point</u> | <u>80% Prediction Range</u> |
| Escapement Goal: | 650,000 | |
| Harvest Estimate: | 3.25 million | |
| Return Estimate: | 3.90 million | 3.12 to 4.68 million |

FORECAST METHODS:

The estimated return to Black Lake provided above is the summation of the predicted returns of two and three ocean sockeye while the Chignik Lake returns are calculated using all contributing age classes.

The Black Lake forecast is based on the historical relationship

CHIGNIK 1991 SALMON HARVEST PROJECTIONS

| <u>Chinook</u> ¹ | <u>Sockeye</u> ² | <u>Coho</u> ³ | <u>Pink</u> ⁴ | <u>Chum</u> | <u>Total</u> |
|-----------------------------|-----------------------------|--------------------------|--------------------------|-------------|--------------|
| 3,500 | 3.25 million | 125,000 | 1.20 million | 90,000 | 4.66 million |

1 The 1991 harvest is dependent upon the amount of fishing time allowed for sockeye salmon in July.

2 Total sockeye harvest including fish allocated to the Cape Igvak and Balboa/Stepovak intercept fisheries.

3 The harvest of coho salmon is related to the Chignik Lake sockeye salmon run strength.

4 The pink salmon forecast is driven by the escapements to the Central and Eastern districts (69 percent). Unstable stream conditions in these districts have resulted in poor returns from excellent parent year escapements. Results of pre-emergent studies indicate that survival in Western District streams was below historical averages.

APPENDIX B

Management Plan for the Chignik Management Area commercial salmon fishery

1991 MANAGEMENT PLAN
FOR THE
CHIGNIK MANAGEMENT AREA
COMMERCIAL SALMON FISHERY

By:

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and
David Owen

Regional Information Report¹ No. 4K91-13

Alaska Department of Fish and Game
Division of Commercial Fisheries
211 Mission Road
Kodiak, Alaska 99615

April 1991

¹The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

LIST OF TABLES

| <u>Table</u> | | <u>Page</u> |
|--------------|---|-------------|
| 1. | Chignik River System sockeye salmon escapement goals for Black Lake (early) and Chignik Lake (late runs), by time period..... | 9 |

LIST OF FIGURES

| <u>Figure</u> | | |
|---------------|--|---|
| 1. | Map of the Chignik Management Area with the statistical fishing districts and some prominent locations identified..... | 7 |
| 2. | Map of the Chignik Management Area illustrating statistical areas, 1991..... | 8 |

LIST OF APPENDICES

| <u>Appendix</u> | | |
|-----------------|---|----|
| 1. | Management guide for the 1991 Cape Igvak fishery... | 10 |
| 2. | Southeastern District Mainland (Alaska Peninsula Area) management plan..... | 12 |

1991 CHIGNIK AREA
SALMON MANAGEMENT PLAN

INTRODUCTION

The Chignik Commercial Salmon Management Area encompasses all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point (Figure 1). The area includes the Chignik River system and approximately 100 other salmon producing streams.

The management area is divided into five districts which are, from east to west: the Eastern, Central, Chignik Bay, Western, and Perryville Districts (Figure 2). The Alaska Department of Fish and Game manages all districts to achieve escapement goals for anadromous salmon species while allowing for the orderly harvest of fish surplus to spawning requirements.

For 1991, waters closed to salmon fishing are described in the 1990-91 commercial finfish regulation booklet. Please be aware of three closed water changes made by the Board of Fisheries in 1987 and a boundary change made in 1989. These changes increased the closed water areas in Ivanof Bay, Portage Bay, Kujulik Bay and moved the district boundary line between the Western and Central Districts.

Purse and hand seines are the only legal gear types for the Chignik Area commercial salmon fishery. In the Eastern, Central, Western, and Perryville Districts, no seine less than 100 fathoms or more than 225 fathoms in length may be used. In the Chignik Bay District seines may not be less than 100 fathoms or more than 125 fathoms in length. This document provides the rationale for management of the Chignik salmon fisheries. In-season fishing time will be established by emergency order as relative run strength of salmon stocks are assessed.

SOCKEYE SALMON

The total sockeye salmon run is forecast to be approximately 3.90 million fish'. The early run, projected to be one of the largest documented with a 2.76 million fish return, has an escapement goal of 400,000 fish with a forecasted harvest of 2.36 million sockeye. The late run return is expected to be smaller than the early run at 1.14 million fish, has an escapement goal of 250,000 which should allow a commercial harvest of approximately 0.89 million fish. From the total projected harvest for both runs of 3.25 million sockeye, approximately 2.66 million are expected to be caught in the Chignik Area and the remainder intercepted.

The first commercial fishing period can occur by regulation on June 1, however based on the most recent 10 years of data the first fishing period usually occurs after June 9. However, due to the return run strength predicted for the first run of sockeye, the first opening may occur earlier than June 9.

Requirements for the first opening includes passing a minimum of 40,000 sockeye salmon through the weir and test fishing indicates a strong buildup of fish in the lagoon. Other openings will be determined from several factors including: escapement counts, commercial catches, and test fishing results (Table 1).

During June, commercial fishing will be allowed only in the Chignik Bay, Central, and Eastern Districts. Commercial salmon fishing will open and close simultaneously in the Eastern, Chignik Bay, and Central Districts as outlined by the Board of Fisheries Eastern District Management Plan. During June and early July the Eastern District may close until the Chignik Lake stock's run strength can be determined. After July 15 the Eastern District will close to commercial salmon fishing as mandated by the Board of Fisheries to

'All harvest projections are based on mid-point projections.

evaluate local pink and chum salmon run strength. If it is determined that stocks being harvested within the Eastern District are not primarily Chignik stocks, the fishery in this district will be closed by emergency order as directed by the Board of Fisheries in the Eastern District Management Plan.

The fisheries in the Cape Igvak Section of the Kodiak management Area and the Southeastern District of the Alaska Peninsula Management Area intercept Chignik sockeye salmon. The Cape Igvak Management Plan and the Southeastern District Management Plan as adopted by the Alaska Board of Fisheries will be used to manage these fisheries (Appendix 1 and 2).

PINK AND CHUM SALMON

The 1991 forecast for the total pink salmon return is estimated at 1.90 million fish with an escapement goal of 0.70 million fish. The projected return is based on the average return per spawner for odd years from 1966 to 1989 and the level of the 1989 escapements.

The first opening in the Western and Perryville Districts (includes all waters south and west of Jack's Point excluding the waters of Chignik Lagoon to Kupreanof Point) are tentatively scheduled for July 6.

Pink and chum management in the Eastern District will be based on the following management plan:

5 AAC 15.360. EASTERN DISTRICT SALMON MANAGEMENT PLAN

(a) The Department shall open and close the Eastern District for commercial salmon fishing concurrently with the Chignik Bay and Central Districts. The Department may close the Eastern District for the period between the first (Black Lake) and second (Chignik Lake) sockeye salmon runs.

(b) The Department shall close the Eastern District on July 15 to evaluate run strength of the pink and chum salmon runs.

(c) The Department shall close the Eastern District if it is determined that the salmon being harvested in that district are from stocks not originating from spawning areas located in the Chignik Area.

The projected chum salmon harvest for Chignik waters is 90 thousand fish. Aerial surveys will be conducted throughout the area to monitor chum salmon buildups. Area specific openings are possible and a 24 hour notice will be given prior to a commercial opening. Openings and closures will be broadcast over 4125 SSB and CH 6 VHF.

Processors within the Chignik Area primarily freeze fish for the higher quality fresh frozen market. As a consequence, greater demands are placed on management to harvest fish in optimum condition. Management strategies will be adjusted to harvest fish as they migrate to their home streams, i.e. increased early fishing effort when a harvestable surplus is available.

Because of the economic importance placed on Chignik sockeye salmon, run timing and strength of the Chignik River runs, i.e. Black Lake (early run) and Chignik Lake (late run) will directly affect commercial fishing time in the Eastern, Western, and Perryville Districts.

If early sockeye run strength (Black Lake) is weaker than forecast, and the 400,000 fish escapement goal through the Chignik River weir is not achieved, then the early July openings in all waters which sockeye would be intercepted may be curtailed. Commercial openings during the transition period between the two sockeye runs (June 26 to July 9) will also be closely monitored to allow evaluation of the Chignik Lake run strength to assure the 250,000 fish escapement goal.

COHO SALMON

Fisheries for late run sockeye and coho salmon will begin in mid August through September, providing escapement goals can be met for the late sockeye run to Chignik Lake. The coho salmon harvest in 1991 is projected to be 125,000 fish with the majority caught in Chignik Lagoon. The average coho harvest for the last 10 years is 159,400 fish.

Chignik Bay District coho management will be similar to recent years. Management of smaller systems, particularly in the Eastern District, will continue to be conservative to prevent overharvest during the initial openings.

TENDER AND PROCESSOR REPORTING REQUIREMENTS

- a. 5 AAC 15.355. The operator of a floating salmon processing vessel or tender, or a shorebased processing operation, and a company employing aircraft used for transporting salmon, shall report in person, or by radio or telephone, to a local representative of the department located in the management area of intended operation before the start of processing or buying operations. The report must include the location and the date of intended operation, and identify and describe each vessel or other method of transport employed in hauling or processing salmon.
- (b) All processors and tender operators will be required to report daily catch information to ADF&G. This can be accomplished by radio (SSB) or telephone. The Chignik ADF&G office will stand by on 4125 SSB and VHF CH 6 frequencies, between 0800 and 1000 hours and 2000 and 2200 hours. The call sign for Chignik is KGB 76 "Chignik Weir" and the telephone number is 845-2243. If unable to contact ADF&G Chignik, your catch information should be given to ADF&G Sand Point or Kodiak via telephone

or 4125 SSB. The call signs for Kodiak and Sand Point are WHM 20 and WIM 77, respectively. Failure to report is a violation of commercial fishing regulations (5 AAC 27.590 (2)); vigorous enforcement of this regulation should be expected.

- (c) Individual code sheets will be given to each tender/processor for the purpose of reporting catch and statistical area of catch.

Table 1. Chignik River System sockeye salmon escapement goals for Black Lake (early) and Chignik Lake (late runs), by time period.

The numbers of fish presented in the escapement tables below were derived from averages over several years of escapements of various timing and magnitude. It should be noted that daily escapement levels will fluctuate considerably throughout the run. THE TABLES LISTED SERVE ONLY AS A GUIDE FOR ACHIEVING THE TOTAL ESCAPEMENT FOR EACH RUN. In-season variations from the figures listed may be due to variations in actual run timing and/or strength of the run.

EARLY RUN - 400,000 ESCAPEMENT

| | | |
|---------|-------|---------|
| June 12 | | 40,000 |
| June 14 | 50 - | 65,000 |
| June 16 | 75 - | 100,000 |
| June 18 | 125 - | 150,000 |
| June 20 | 175 - | 200,000 |
| June 22 | 225 - | 250,000 |
| June 25 | 275 - | 325,000 |
| June 30 | 350 - | 400,000 |

LATE RUN - 250,000 ESCAPEMENT

EARLY ESCAPEMENT IS ACHIEVED

EARLY ESCAPEMENT IS NOT ACHIEVED

| | | | |
|---------|-------|---------|---------------|
| July 6 | - | | 40,000 |
| July 8 | - | | 45 - 50,000 |
| July 10 | | 40,000 | 55 - 65,000 |
| July 12 | 50 - | 60,000 | 70 - 75,000 |
| July 14 | 65 - | 75,000 | 75 - 80,000 |
| July 16 | 80 - | 90,000 | 80 - 90,000 |
| July 19 | 100 - | 115,000 | 100 - 115,000 |
| July 21 | 125 - | 135,000 | 125 - 135,000 |
| July 23 | 145 - | 160,000 | 150 - 160,000 |
| July 26 | 170 - | 180,000 | 170 - 180,000 |
| July 29 | 185 - | 195,000 | 190 - 195,000 |
| July 31 | 195 - | 200,000 | 195 - 200,000 |

Figure 1. Map of the Chignik Management Area illustrating district boundaries, 1989.

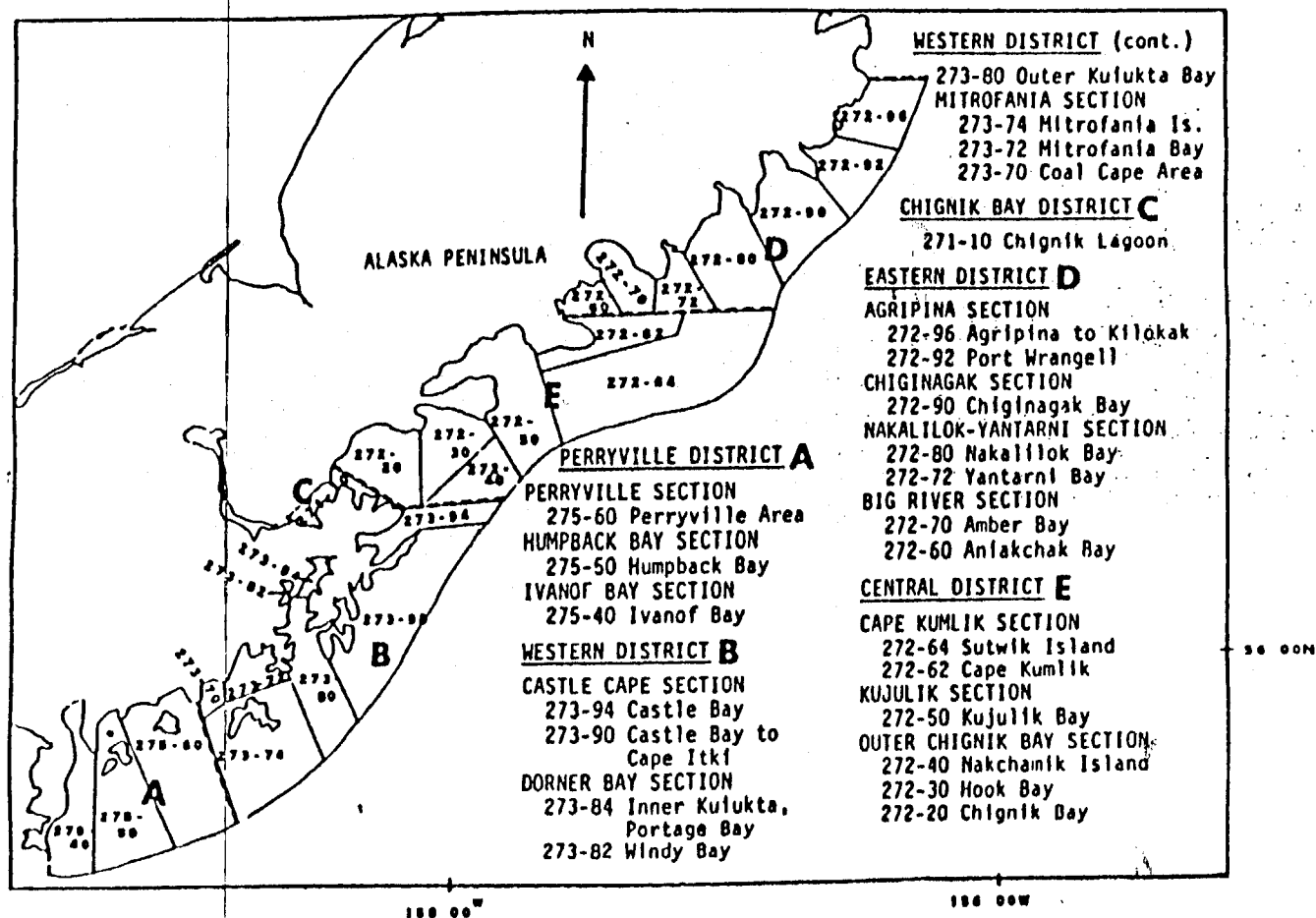


Figure 2. Map of the Chignik Management Area illustrating statistical areas, 1989.

Appendix 1

MANAGEMENT GUIDE FOR THE 1991 CAPE IGVAK FISHERY

The midpoint harvest figures for the 1991 Chignik sockeye runs are forecast to be 2.36 million for the first run and 0.89 million fish for the second run, or a projected total harvest of 3.25 million Chignik bound sockeye.

The department will manage the Cape Igvak fishery according to the plan adopted by the Board of Fisheries. Since the harvestable surplus is expected to be more than 600,000, the fishery at Cape Igvak can open when the fishery opens at Chignik, and it is possible that the first opening could be as early as June 5. Approximately 48 hours notice will be given prior to the Cape Igvak opening. At least a 24 hour notice will be given prior to the opening of any other fishing period, unless it is an extension of a fishing period in progress. Fishing periods will normally be at least 24 hours long and will begin at 12:01 A.M. If the first run fails, the Cape Igvak fishery will be curtailed in order to allow a minimum harvest in the Chignik Area of at least 300,000 sockeye through July if that many are surplus beyond escapement needs.

During the period from approximately June 26 to July 9, the strength of the second run of Chignik River system sockeye salmon cannot be evaluated at Chignik Lagoon. In order to prevent overharvest of the second run, commercial salmon fishing in the Cape Igvak Section will, at the department's discretion, be disallowed or severely restricted during this period.

Fishing time at Cape Igvak after July 8 will be dependent on the strength of the second run and on the Chignik Area catch during the first run.

When the second run appears strong enough for a fishery at Chignik, Cape Igvak could be opened only if at least 300,000 were harvested from the first run in the Chignik Area. The department will then manage the fishery so that the number of sockeye salmon harvested in the Chignik Area for both runs combined will be at least 600,000 and the harvest in the Cape Igvak Section will approach as near as possible 15 percent of the total catch of Chignik bound sockeye, if that many fish are available surplus to the escapement needs.

Appendix 2.

SOUTHEASTERN DISTRICT MAINLAND (ALASKA PENINSULA AREA)
MANAGEMENT PLAN

By

James N. McCullough

Regional Information Report¹ No. 4K91-5

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April 1991

¹The Regional Information Report Series was established in 1987 to provide an informational access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

TABLE OF CONTENTS

| | <u>Page</u> |
|--|-------------|
| LIST OF TABLES | i |
| LIST OF FIGURES | i |
| MANAGEMENT PLAN | 1 |
| East Stepovak, Southwest Stepovak, Balboa Bay and Beaver Bay Sections | 1 |
| Local Stocks | 4 |
| Northwest Stepovak Section | 4 |
| Stepovak Flats Section | 6 |
| LITERATURE CITED | 7 |
| APPENDICES | 8 |
| Southeastern District Salmon Management Plan | 8 |
| (Chignik) Preliminary Forecast of the 1991 Return | 10 |
| Application of Fishery Management Plans | 12 |

LIST OF TABLES

| <u>Table</u> | <u>Page</u> |
|---|-------------|
| 1. Southeastern District Mainland fishery catch of Chignik destined sockeye salmon through July 25, 1980-90 | 3 |
| 2. Sockeye salmon escapement requirements for Orzinski Lake . . . | 5 |

LIST OF FIGURES

| <u>Figure</u> | <u>Page</u> |
|---|-------------|
| 1. Map of the Southeastern District Mainland fishery from Kupreanof Point to McGinty Point with the salmon sections shown | 2 |

MANAGEMENT PLAN

East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections

The Southeastern District Mainland (Balboa-Stepovak) fishery (Figure 1) will be managed according to the Southeastern District Management Plan (Appendix A) as adopted by the Alaska Board of Fisheries.

The East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections will be managed on the basis of the interception of Chignik River sockeye salmon. The Northwest Stepovak and Stepovak Flats Sections will be managed on a local stock basis, the Northwest Stepovak Section on the basis of the Orzinski Lake sockeye salmon stock and the Stepovak Flats Section on the basis of the Stepovak River chum salmon stock.

When possible, fishing time in the Southeastern District Mainland fishery will coincide with other nearby fisheries to avoid concentrating fishing gear. At least 36 hours notice will be given prior to the first commercial fishing period in the fishery. At least 24 hours notice will be given prior to the opening of any other fishing period, unless it is an extension of a fishing period in progress.

For salmon fishing, set gill net gear is the only legal gear type allowed in the Southeastern District Mainland fishery through July 10. After July 10, set gill net, purse seine, and hand purse seine gear types are allowed.

The forecasted midpoint harvest for the Chignik sockeye salmon runs for 1991 are 2,363,000 salmon for the early run and 890,000 salmon for the second run (Appendix B). If the runs come in as expected and the goals of the management plan are achieved, about 180,000 estimated Chignik destined sockeye salmon will be harvested prior to July 26. This compares to the recent five year average of 83,459 and 10 year average of 130,382 (Table 1).

The total Chignik sockeye salmon catch is 100% of those sockeye salmon caught within the Chignik Management Area, plus 80% of those sockeye salmon caught in the Cape Igvak Section of the Kodiak Management Area, plus 80% of those sockeye salmon caught in the Southeastern District Mainland fishery excluding 100% of those sockeye salmon caught in the Suzy Creek to Dent Point area.

Because the harvestable surplus is expected to exceed 600,000 sockeye salmon, the Southeastern District Mainland fishery may open after the first commercial fishing period in the Chignik Area. Based on the 2,363,000 sockeye salmon early run harvest forecast, it is possible that the first opening for the Southeastern District Mainland fishery could be in early to mid June.

If the first run fails to develop as expected, the Southeastern District Mainland fishery will be curtailed in order to allow a minimum harvest in the Chignik Area of at least 300,000 sockeye through July 8, if that many salmon are surplus to escapement requirements.

During the period from about June 26 through July 9, the strength of the second run of Chignik River sockeye salmon cannot be evaluated at Chignik. To prevent

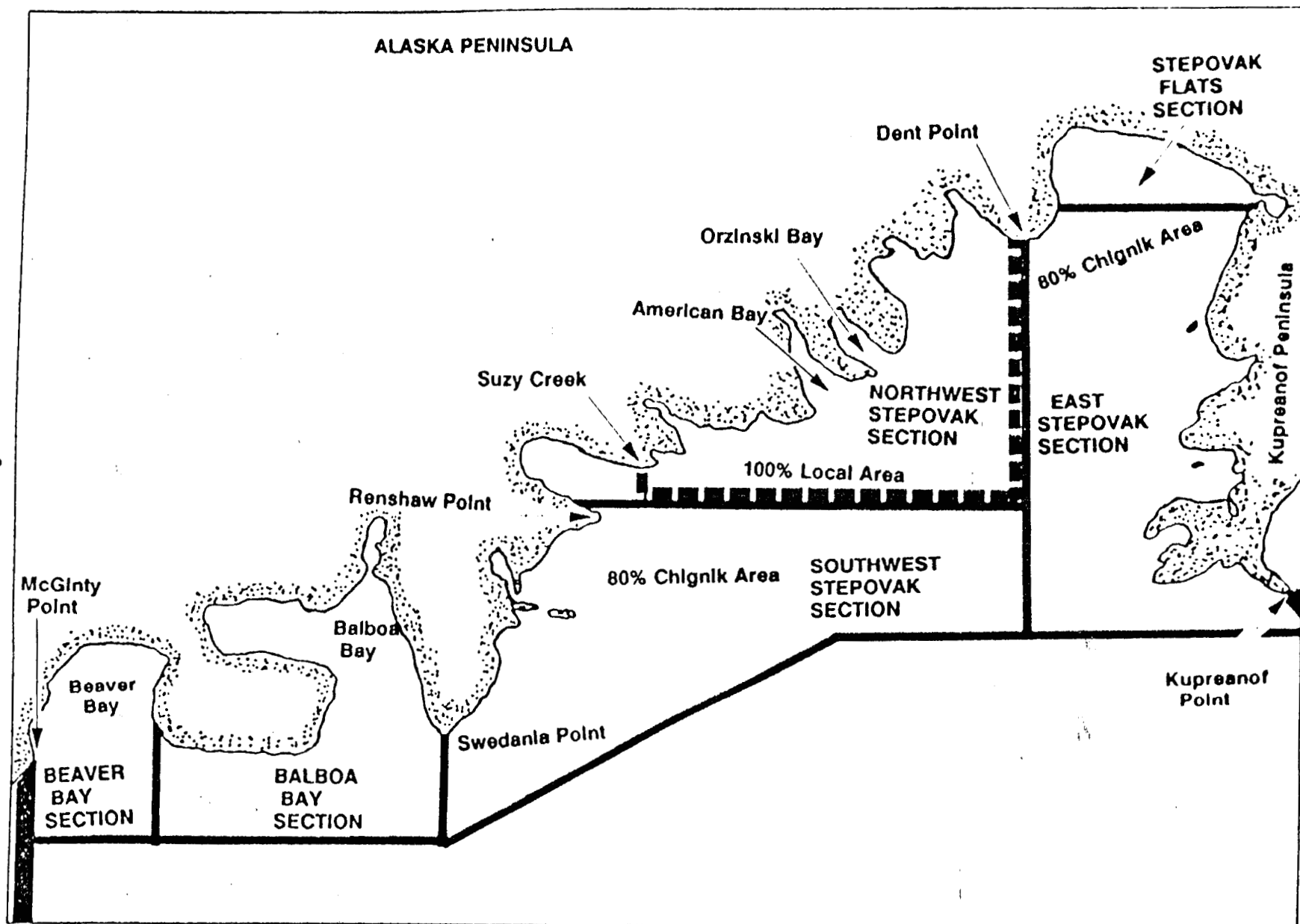


Figure 1. Map of the Southeastern District Mainland fishery from Kupreanof Point to McGinty Point with the salmon sections shown.

Table 1. Southeastern District Mainland fishery catch of Chignik destined sockeye salmon through July 25, 1980-90.¹

| Year | Number of Salmon | | | |
|----------|------------------|--------------------|--------------------------------------|----------------------------------|
| | Total Catch | Northwest Stepovak | Total Catch Minus Northwest Stepovak | Chignik Bound Catch ¹ |
| 1981 | 201,711 | 49,374 | 152,337 | 121,870 |
| 1982 | 86,793 | 8,334 | 78,459 | 62,767 |
| 1983 | 300,158 | 15,918 | 284,240 | 227,392 |
| 1984 | 595,043 | 66,209 | 528,834 | 423,067 |
| 1985 | 80,957 | 16,681 | 64,276 | 51,421 |
| 1986 | 206,532 | 59,025 | 147,507 | 118,006 |
| 1987 | 244,895 | 61,287 | 183,608 | 146,886 |
| 1988 | 81,160 | 57,010 | 24,150 | 19,320 |
| 1989 | 89,224 | 83,618 | 5,606 | 4,484 |
| 1990 | 164,028 | 3,279 | 160,749 | 128,599 |
| Average: | | | | |
| 5 Year | 157,168 | 52,844 | 104,324 | 83,459 |
| 10 Year | 205,050 | 42,074 | 162,977 | 130,382 |

¹ The estimate of sockeye salmon destined for the Chignik River has been determined to be 80% of the sockeye salmon harvested along the mainland from the eastern most tip of McGinty Point to Suzy Creek and from the Stepovak Flats and the East Stepovak Sections.

overharvest of the second run, commercial salmon fishing in the Southeastern District will, in the Department's discretion, be disallowed or severely restricted during this time period.

After July 8, fishing time in the Southeastern District Mainland fishery will be dependent upon the strength of the second run as evaluated at Chignik and on the catch of Chignik bound sockeye during the first run at Cape Igvak, Chignik, and the Southeastern District Mainland fisheries. When the second run appears strong enough for a fishery at Chignik, the Southeastern District Mainland will open if at least 300,000 sockeye salmon were harvested in the Chignik Area. The Department will manage the fishery so that the number of sockeye salmon harvested in the Chignik Area from both runs combined will be at least 600,000 salmon and the harvest in the Southeastern District Mainland will approach as near as possible 6.0% of the total Chignik bound sockeye salmon catch (Appendix C), if that many sockeye salmon are surplus to escapement requirements.

The fishery shall be managed according to the plan as stated in the 1990-1991 Bristol Bay and Westward Alaska commercial salmon fishing regulation book (Appendix A). No attempt will be made to allow equal fishing time with Chignik, as had been done from 1974 through 1977, but rather the end goal will be to meet the 6.0% allocation level after the conditions of the management plan have been satisfied. To meet the goal of 6.0% by July 25, the percentage may fluctuate above or below 6.0% prior to July 25. Because of the restrictions placed upon the Southeastern District Mainland fishery to protect the Chignik runs, it may not be possible to achieve a 6.0% allocation level even though escapement goals are met and the minimum catch level of 600,000 salmon at Chignik is exceeded.

Local Stocks

The Northwest Stepovak and Stepovak Flats Sections will be managed on a local stock basis. The Northwest Stepovak Section will be managed on the basis of the Orzinski Lake sockeye salmon stock from July 1 through July 25, after July 25 on local sockeye and pink salmon runs. The Stepovak Flats Section will be managed on the basis of the Stepovak River chum salmon stock.

Northwest Stepovak Section

The sockeye escapement goal for Orzinski (Orzenoi) Lake is 10,000 to 20,000 salmon as estimated from the production potential of the lake (personnel communication, Arnie Shaul, Alaska Department of Fish and Game, Kodiak, Alaska). In 1991, the total estimated sockeye escapement was 15,000 salmon. ADF&G intends to operate a weir on the Orzinski system in 1991, similar to the 1990 weir.

A weir was used to count escapements into the lake from 1935 to 1941, and in 1990. The earliest recorded sockeye escapement occurred on June 11, 1940 (11 salmon), while the usual pattern of first entry into the lake is about June 17. July 17 is the average date of 50% cumulative sockeye escapement, while on the average 99% of the escapement occurs by August 7. Based on aerial surveys and weir counts, sockeye salmon escapement requirements for Orzinski Lake by time periods has been developed (Table 2).

Table 2. Sockeye salmon escapement requirements for Orzinski Lake.

| Time Period | Cumulative Escapement Goal |
|--------------|----------------------------|
| June 15 | 0 |
| July 1 | 2,000 |
| July 9 | 5,000 |
| July 16 | 10,000 |
| July 23 | 15,000 |
| August 7 | 20,000 |
| Season Total | 20,000 |

Through June 30, 1991, the Northwest Stepovak Section (except Orzinski Bay) will be open on a day per day basis with the rest of the Southeastern District Mainland fishery. Sockeye salmon caught within the Northwest Stepovak Section through June 30 will be allocated 100% to the Orzinski Lake run. From July 1 through July 25, fishing time in the Northwest Stepovak Section will be based on the strength of the sockeye salmon run destined to Orzinski Lake. After July 25, fishing time will be based on local sockeye, pink, and chum salmon stocks. If the sockeye salmon escapement into Orzinski Lake, school near the mouth of the Orzinski Lake River and escapement goals are not met, Orzinski Bay will be closed north of a line from Elephant Point (55°41'55" N.lat., 160°03'12"W.long.) to Waterfall Point (55°43'13" N.lat., 160°01'05" W.long.).

Stepovak Flats Section

The Stepovak Flats Section will be managed on the basis of the chum salmon run into Stepovak River (local stock basis). Through July 11, this section will open to commercial salmon fishing on a day per day basis with the remainder of the Southeastern District Mainland fishery. Sockeye harvested in this section will be assigned as 80% Chignik bound and are included as part of the 6.0% allocation of the Southeastern District Mainland fishery. After July 10, the Stepovak Flats Section will be managed on the basis of the chum salmon run into Stepovak River. Fishermen are reminded that most of this section is closed to commercial salmon fishing from July 29 through September 30 (5 AAC 09.350(23)).

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- Shaul, A.R., J.N. McCullough, A.J. Quimby, M.E. Stopha, and R.S. Berceli. *In Press*. 1990 Alaska Peninsula and Aleutian Islands Management Areas Salmon and Herring Annual Management Report, Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report, Kodiak.

Appendix A

5 AAC 09.360. SOUTHEASTERN DISTRICT SALMON MANAGEMENT PLAN.

(a) This plan pertains to the management of the interception of Chignik River sockeye salmon caught in the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections. Before July 11, only set gillnet gear may be used in these sections. For the purpose of this plan, local runs include only those salmon in the waters inside of a line from Renshaw Point to the mouth of Osterback Creek.

(b) In years when a harvestable surplus for the first (Black Lake) and second (Chignik Lake) runs of Chignik River system sockeye salmon is expected to be less than 600,000, no commercial salmon fishery is allowed in the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections, as described in 5 AAC 09.200 (f), until a harvest of 300,000 sockeye salmon in the Chignik Area, as described in 5 AAC 15.100, is achieved. After July 8, after at least 300,000 sockeye salmon have been harvested in the Chignik Area, and if escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections approaches as near as possible 6 percent of the total Chignik sockeye salmon catch.

(c) In years when a harvestable surplus beyond escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000 but the first run fails to develop as predicted and it is determined that a total sockeye salmon harvest in the Chignik Area of 600,000 or more may not be achieved, the commercial salmon fishery in the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections must be curtailed in order to allow at least a minimum harvest in the Chignik Area of 300,000 sockeye salmon by July 9 if that number of fish are determined to be surplus to the escapement goals of the Chignik River system. After July 8 and after at least 300,000 sockeye salmon have been harvested in the Chignik Area, and if escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area is at least 600,000 and the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections approaches as near as possible 6 percent of the total Chignik sockeye salmon catch.

(d) In years when a harvestable surplus beyond the escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000 and the department determines that the runs are as strong as expected, the department shall manage the fishery so that the number of sockeye salmon taken in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections approaches as near as possible 6 percent of the total Chignik sockeye salmon catch.

(e) The estimate of sockeye salmon destined for the Chignik River has been determined to be 80 percent of the sockeye salmon harvested along the mainland from the eastern-most tip of McGinty Point to Suzy Creek and from the Stepovak Flats and the East Stepovak Sections. The remaining sockeye salmon taken in the mainland fishery have been determined to be destined for Orzinski Bay.

(f) The total Chignik sockeye salmon catch constitutes those sockeye salmon caught within the Chignik Area, plus 80 percent of the sockeye salmon caught in

the East Stepovak, Stepovak Flats, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections, as described in 5 AAC 09.200(f), plus 80 percent of the sockeye salmon caught in the Cape Igvak Section of the Kodiak Area. The percentage of Chignik sockeye salmon may be permitted to fluctuate above or below 6 percent at any time before July 25.

(g) This allocation method is in effect through July 25. The first fishing period of the commercial salmon fishing season in the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections may not occur before the first fishing period of the commercial salmon fishing season in the Chignik Area. After July 25, commercial salmon fishing in the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections may be allowed on local stocks.

(h) During the period from approximately June 26 to July 9, the strength of the second run of the Chignik River system sockeye salmon cannot be evaluated. In order to prevent overharvest of the second run, the department may disallow or severely restrict commercial salmon fishing in the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Section during this period.

(i) The department shall announce commercial salmon fishing periods by emergency order. The department shall give at least one day's notice before the opening of a commercial salmon fishing period, unless it is an extension of a fishing period in progress.

Appendix B

FORECAST AREA: Chignik Management Area

PRELIMINARY FORECAST OF THE 1991 RETURN

| <u>Early Run (Black Lake stocks)</u> | | <u>Point</u> | <u>80% Prediction Range</u> |
|---------------------------------------|--|--------------|-----------------------------|
| Escapement Goal: | | 400,000 | |
| Harvest Estimate: | | 2,363,300 | |
| Return Estimate: | | 2,763,300 | 2.34 to 3.18 million |
| <u>Late Run (Chignik Lake stocks)</u> | | <u>Point</u> | <u>80% Prediction Range</u> |
| Escapement Goal: | | 250,000 | |
| Harvest Estimate: | | 890,000 | |
| Return Estimate: | | 1,140,000 | 0.91 to 1.37 million |
| <u>Total Chignik Run</u> | | <u>Point</u> | <u>80% Prediction Range</u> |
| Escapement Goal: | | 650,000 | |
| Harvest Estimate: | | 3.25 million | |
| Return Estimate: | | 3.90 million | 3.12 to 4.68 million |

FORECAST METHODS:

The estimated return to Black Lake provided above is the summation of the predicted returns of two and three ocean sockeye while the Chignik Lake returns are calculated using all contributing age classes.

The Black Lake forecast is based on the historical relationship between the prior year total return of age 1.2 fish, the average length of prior year age 1.2 male fish and the parent year escapement. These variables provide the framework for the multiple linear regression model used to predict the 1991 return. The Chignik Lake forecast has historically been quite variable in its accuracy and developing a model such as the one used for the first run has been unsuccessful. The forecast for 1991 was derived using an average return per spawner for each age class represented in the return.

DISCUSSION OF THE 1991 FORECAST:

Early Run

The estimated return of Black Lake sockeye salmon in 1991 is 2.76 million fish. This is approximately 1.2 million fish more than the 1980-89 average run of 1.57 million fish. The 1986 parent year escapement was 566,100 fish, 166,100 fish above the 400,000 fish escapement goal. The estimated return of 335,200 age 1.2 fish in 1990 was twice the 10 year average of 160,000. The 1990 1.2 return was also only 53,000 less than the 1983 1.2 return of 388 thousand which preceded the record run of 3.84 million in 1984.

Late Run

The estimated return of second run sockeye salmon in 1991 is 1.14 million fish, 40,000 more than the 1980-89 average of 1.10 million fish. The second run forecast has historically been quite variable when compared to actual returns. The 1985 parent year escapement of 369,200 fish was 119,200 above the 250,000 desired escapement goal. The average return per spawner for each contributing age class was used to forecast the return and it is anticipated that the actual return will fall within the prediction bounds.

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APPENDIX C

*Total sockeye salmon returns to Black Lake and Chignik Lakes
by brood year and age class, 1915-1991*

Appendix C.1. Total sockeye return to Black Lake by brood year and age,
1915 - 1991.

| Year | Parent Escapment | Age Class | | | | | | | | | | | | Total | Return Per Spawner |
|------|---------------------|-----------|-------|-----|---------|-----|-----------|---------|---------|---------|-------|-------|-------|-----------|--------------------------|
| | | 0.2 | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | | |
| 1915 | | | | | | | | | | | | 1,202 | 1,202 | 2,404 | |
| 1916 | | | | | | | | | 9,315 | 68,559 | 37 | 15 | 0 | 77,926 | |
| 1917 | | | | | | | 318,491 | 20,666 | 576 | 18,747 | 0 | 0 | 0 | 358,480 | |
| 1918 | | | | 0 | 12,960 | 0 | 43,803 | 6,984 | 0 | 49,097 | 0 | 0 | 138 | 112,982 | |
| 1919 | | 0 | 0 | 0 | 15,073 | 0 | 92,073 | 28,499 | 16 | 74,062 | 30 | 0 | 324 | 210,077 | |
| 1920 | | 0 | 0 | 0 | 63,251 | 0 | 422,288 | 28,279 | 0 | 111,422 | 6,511 | 0 | 273 | 632,024 | |
| 1921 | | 0 | 0 | 0 | 122,550 | 0 | 258,628 | 113,493 | 5,873 | 255,927 | 0 | 0 | 0 | 756,471 | |
| 1922 | 86,421 | 0 | 0 | 0 | 40,685 | 0 | 659,040 | 56,121 | 0 | 202,612 | 2,465 | 1,222 | 1,669 | 963,814 | 11.2 |
| 1923 | 4,642 | 0 | 0 | 0 | 18,213 | 0 | 172,343 | 53,445 | 2,677 | 132,776 | 410 | 436 | 59 | 380,359 | 81.9 |
| 1924 | 121,983 | 0 | 0 | 0 | 85,083 | 0 | 1,206,555 | 8,855 | 426 | 19,931 | 939 | 384 | 384 | 1,322,557 | 10.8 |
| 1925 | 386,364 | 0 | 0 | 0 | 1,529 | 0 | 54,164 | 9,924 | 384 | 50,707 | 937 | 17 | 0 | 117,662 | 0.3 |
| 1926 | 289,009 | 0 | 0 | 0 | 7,544 | 420 | 104,094 | 45,572 | 11,714 | 352,025 | 7,117 | 0 | 1,708 | 530,194 | 1.8 |
| 1927 | 857,881 | 0 | 0 | 0 | 99,929 | 66 | 2,375,878 | 85,253 | 721 | 107,239 | 165 | 3,699 | 4,234 | 2,677,184 | 3.1 |
| 1928 | 507,353 | 0 | 0 | 0 | 23,860 | 0 | 304,338 | 49,284 | 9,848 | 428,369 | 2,755 | 409 | 2,118 | 820,981 | 1.6 |
| 1929 | 995,832 | 0 | 0 | 0 | 9,910 | 0 | 918,487 | 58,777 | 5,626 | 60,214 | 865 | 144 | 144 | 1,054,167 | 1.1 |
| 1930 | 92,955 | 0 | 0 | 0 | 23,769 | 0 | 286,339 | 13,886 | 6,663 | 43,297 | 3,527 | 4 | 0 | 377,485 | 4.1 |
| 1931 | 96,201 | 0 | 0 | 0 | 33,685 | 943 | 923,763 | 46,710 | 28 | 122,389 | 0 | 655 | 58 | 1,128,231 | 11.7 |
| 1932 | 2,151,734 | 0 | 0 | 0 | 50,602 | 0 | 191,354 | 36,823 | 10,350 | 43,060 | 291 | 8,584 | 234 | 341,298 | 0.2 |
| 1933 | 223,913 | 0 | 0 | 0 | 62,079 | 0 | 247,818 | 7,609 | 138,675 | 164,540 | 0 | 625 | 54 | 621,400 | 2.8 |
| 1934 | 866,890 | 0 | 0 | 0 | 16,228 | 4 | 1,583,632 | 6,057 | 9,886 | 40,971 | 276 | 1,299 | 113 | 1,658,466 | 1.9 |
| 1935 | 194,636 | 0 | 10 | 0 | 68,710 | 0 | 235,971 | 7,188 | 20,562 | 85,058 | 572 | 1,508 | 130 | 419,709 | 2.2 |
| 1936 | 548,039 | 0 | 0 | 0 | 15,422 | 3 | 490,061 | 14,873 | 23,865 | 98,553 | 661 | 2,346 | 201 | 645,985 | 1.2 |
| 1937 | 205,613 | 0 | 9 | 0 | 32,001 | 7 | 567,984 | 17,179 | 37,146 | 153,156 | 1,026 | 960 | 82 | 809,550 | 3.9 |
| 1938 | 175,972 | 0 | 19 | 0 | 37,059 | 7 | 882,938 | 26,618 | 15,193 | 62,552 | 418 | 706 | 60 | 1,025,570 | 5.8 |
| 1939 | 1,142,852 | 0 | 22 | 0 | 57,563 | 12 | 360,712 | 10,840 | 11,171 | 45,926 | 307 | 2,470 | 209 | 489,232 | 0.4 |
| 1940 | 176,307 | 0 | 35 | 0 | 23,499 | 5 | 264,904 | 7,938 | 39,130 | 160,651 | 1,070 | 7,513 | 634 | 505,379 | 2.9 |
| 1941 | 374,420 | 0 | 14 | 0 | 17,246 | 3 | 926,890 | 27,697 | 119,048 | 488,137 | 3,247 | 1,196 | 101 | 1,583,579 | 4.2 |
| 1942 | 442,981 | 0 | 11 | 0 | 60,302 | 12 | 2,817,023 | 83,954 | 18,948 | 77,598 | 515 | 684 | 58 | 3,059,105 | 6.9 |
| 1943 | 701,859 | 0 | 36 | 0 | 183,156 | 37 | 447,919 | 13,315 | 10,839 | 44,522 | 297 | 499 | 38 | 700,658 | 1.0 |
| 1944 | 291,844 | 0 | 111 | 0 | 29,106 | 6 | 256,848 | 7,683 | 7,947 | 31,664 | 203 | 482 | 43 | 334,093 | 1.1 |
| 1945 | 217,882 | 0 | 18 | 0 | 16,715 | 3 | 183,734 | 5,143 | 7,619 | 31,784 | 216 | 275 | 27 | 245,534 | 1.1 |
| 1946 | 774,130 | 0 | 10 | 0 | 11,775 | 2 | 182,835 | 5,644 | 4,307 | 18,686 | 133 | 707 | 64 | 224,163 | 0.3 |
| 1947 | 2,386,733 | 0 | 7 | 0 | 11,988 | 2 | 106,718 | 3,550 | 11,150 | 46,809 | 320 | 525 | 43 | 181,112 | 0.1 |
| 1948 | 384,637 | 0 | 7 | 0 | 7,129 | 1 | 268,953 | 8,407 | 8,346 | 33,877 | 223 | 352 | 0 | 327,295 | 0.9 |
| 1949 | 213,269 | 0 | 4 | 0 | 17,688 | 4 | 195,878 | 5,713 | 0 | 89,095 | 0 | 0 | 152 | 308,534 | 1.4 |
| 1950 | 206,270 | 0 | 11 | 0 | 12,671 | 3 | 287,407 | 12,644 | 1,862 | 76,722 | 648 | 373 | 286 | 392,627 | 1.9 |
| 1951 | 125,126 | 0 | 8 | 0 | 46,798 | 0 | 448,360 | 3,404 | 2,319 | 124,345 | 0 | 455 | 0 | 625,689 | 5.0 |
| 1952 | 34,155 | 0 | 0 | 0 | 4,390 | 0 | 137,957 | 3,423 | 208 | 81,691 | 0 | 639 | 2,512 | 230,820 | 6.8 |
| 1953 | 168,375 | 0 | 0 | 0 | 1,024 | 32 | 154,589 | 17,848 | 1,625 | 180,887 | 252 | 0 | 1,350 | 357,607 | 2.1 |
| 1954 | 184,953 | 0 | 143 | 0 | 6,468 | 0 | 50,272 | 10,720 | 515 | 72,973 | 9 | 312 | 1,009 | 142,421 | 0.8 |
| 1955 | 256,757 | 0 | 783 | 0 | 30,302 | 0 | 430,793 | 3,476 | 339 | 88,693 | 109 | 0 | 0 | 554,495 | 2.2 |
| 1956 | 289,096 | 0 | 17 | 0 | 16,499 | 0 | 81,569 | 14,910 | 9 | 90,001 | 0 | 196 | 4,967 | 208,168 | 0.7 |
| 1957 | 192,479 | 0 | 0 | 0 | 6,559 | 161 | 117,979 | 10,507 | 52 | 210,686 | 3,641 | 21 | 906 | 350,512 | 1.8 |
| 1958 | 120,862 | 0 | 905 | 0 | 19,146 | 0 | 79,955 | 81,992 | 0 | 60,132 | 77 | 61 | 103 | 242,370 | 2.0 |
| 1959 | 112,226 | 0 | 1,522 | 0 | 31,039 | 142 | 148,403 | 13,872 | 402 | 144,581 | 874 | 58 | 54 | 340,947 | 3.0 |
| 1960 | 251,567 | 0 | 124 | 0 | 55,546 | 221 | 610,592 | 32,598 | 6,221 | 65,418 | 49 | 606 | 3,383 | 774,756 | 3.1 |

-Continued-

Appendix C.1. (page 2 of 2)

| Year | Parent Escapement | Age Class | | | | | | | | | | | | Other | Total | Return Per Spawner |
|------|-------------------|-----------|-------|---------|---------|-------|-----------|---------|--------|---------|-------|-------|--------|--------|-----------|--------------------|
| | | 0.2 | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | | | |
| 1961 | 140,714 | 0 | 276 | 0 | 14,301 | 1 | 387,053 | 3,483 | 536 | 164,278 | 486 | 1,020 | 209 | 0 | 571,645 | 4.1 |
| 1962 | 167,602 | 0 | 698 | 0 | 8,379 | 0 | 257,371 | 25,726 | 3,194 | 395,626 | 1,524 | 954 | 0 | 0 | 693,473 | 4.1 |
| 1963 | 332,536 | 0 | 0 | 0 | 29,538 | 173 | 448,298 | 17,628 | 905 | 199,104 | 0 | 2,506 | 551 | 0 | 698,703 | 2.1 |
| 1964 | 137,073 | 0 | 37 | 0 | 13,311 | 3,735 | 190,972 | 133,203 | 3,809 | 409,973 | 414 | 0 | 271 | 0 | 755,726 | 5.5 |
| 1965 | 307,192 | 0 | 394 | 0 | 102,570 | 421 | 1,535,858 | 80,851 | 3,332 | 201,220 | 271 | 497 | 22,731 | 0 | 1,948,144 | 6.3 |
| 1966 | 383,545 | 0 | 1,631 | 0 | 65,254 | 378 | 990,567 | 15,248 | 2,193 | 225,660 | 28 | 0 | 2,504 | 0 | 1,303,463 | 3.4 |
| 1967 | 328,000 | 0 | 2,728 | 0 | 16,157 | 163 | 99,357 | 6,078 | 13,406 | 96,629 | 1,537 | 0 | 0 | 0 | 236,054 | 0.7 |
| 1968 | 342,343 | 0 | 271 | 0 | 12,997 | 0 | 971,408 | 4,519 | 2,163 | 161,664 | 1,960 | 0 | 1,663 | 0 | 1,156,644 | 3.4 |
| 1969 | 366,589 | 0 | 0 | 0 | 12,747 | 153 | 279,429 | 63,258 | 1,313 | 84,120 | 486 | 0 | 2,251 | 0 | 443,757 | 1.2 |
| 1970 | 536,257 | 0 | 0 | 0 | 17,281 | 261 | 195,050 | 8,163 | 4,614 | 192,247 | 621 | 0 | 3,698 | 0 | 421,934 | 0.8 |
| 1971 | 671,668 | 0 | 569 | 0 | 22,138 | 0 | 800,515 | 67,483 | 3,873 | 454,039 | 385 | 264 | 6,763 | 0 | 1,356,029 | 2.0 |
| 1972 | 326,320 | 0 | 0 | 0 | 31,630 | 0 | 423,794 | 16,474 | 3,195 | 587,997 | 4,596 | 831 | 2,564 | 0 | 1,071,082 | 3.3 |
| 1973 | 533,047 | 0 | 0 | 0 | 19,627 | 0 | 753,970 | 121,231 | 0 | 324,538 | 1,425 | 511 | 1,812 | 0 | 1,223,113 | 2.3 |
| 1974 | 351,701 | 0 | 51 | 0 | 50,797 | 334 | 123,590 | 117,544 | 116 | 305,094 | 551 | 452 | 2,727 | 0 | 601,256 | 1.7 |
| 1975 | 308,914 | 0 | 0 | 0 | 19,977 | 1,826 | 71,732 | 55,434 | 1,010 | 447,233 | 1,057 | 396 | 34 | 2,437 | 601,137 | 1.9 |
| 1976 | 551,254 | 0 | 520 | 0 | 44,085 | 88 | 669,395 | 24,810 | 816 | 135,036 | 0 | 0 | 334 | 11,778 | 886,860 | 1.6 |
| 1977 | 482,247 | 0 | 102 | 0 | 59,211 | 389 | 1,687,898 | 12,701 | 6,990 | 337,281 | 0 | 3,492 | 1,655 | 44,852 | 2,154,571 | 4.5 |
| 1978 | 458,660 | 0 | 235 | 0 | 55,123 | 3,060 | 448,274 | 61,734 | 6,664 | 354,902 | 0 | 0 | 210 | 15,138 | 945,339 | 2.1 |
| 1979 | 385,694 | 0 | 1,241 | 0 | 533,050 | 671 | 3,195,846 | 57,155 | 4,133 | 68,046 | 223 | 422 | 805 | 1,350 | 3,862,941 | 10.0 |
| 1980 | 311,332 | 0 | 255 | 120,421 | 99,989 | 1,187 | 641,668 | 151,574 | 1,503 | 741,614 | 2,098 | 943 | 1,113 | 4,847 | 1,767,213 | 5.7 |
| 1981 | 438,540 | 0 | 532 | 0 | 155,923 | 1,112 | 938,072 | 75,567 | 4,289 | 664,383 | 510 | 1,112 | 259 | 2,819 | 1,844,578 | 4.2 |
| 1982 | 616,117 | 0 | 121 | 0 | 172,993 | 2,021 | 1,627,753 | 134,483 | 2,133 | 391,690 | 0 | 394 | 0 | 194 | 2,331,780 | 3.8 |
| 1983 | 426,177 | 0 | 0 | 19,136 | 79,674 | 3,905 | 209,772 | 37,475 | 285 | 211,457 | 2 | 3,596 | 586 | 466 | 566,353 | 1.3 |
| 1984 | 597,712 | 478 | 2,279 | 1,225 | 46,148 | 2,194 | 324,901 | 42,078 | 2,605 | 210,908 | 1,216 | 3,596 | 586 | 0 | 638,214 | 1.1 |
| 1985 | 377,516 | 156 | 501 | 510 | 36,677 | 638 | 376,202 | 73,568 | 20,665 | 249,837 | 1,091 | 3,596 | 586 | 3,500 | 767,527 | 2.0 |
| 1986 | 566,088 | 384 | 1,517 | 6,384 | 342,057 | 0 | 1,893,213 | 55,260 | | | | 3,596 | 586 | 45 | 2,303,042 | 4.1 |
| 1987 | 589,291 | 2,325 | 0 | 961 | 145,616 | 1,027 | | | | | | | | | 149,929 | |
| 1988 | 420,577 | 0 | 1,467 | | | | | | | | | | | | 1,467 | |
| 1989 | 384,004 | | | | | | | | | | | | | | | |
| 1990 | 434,543 | | | | | | | | | | | | | | | |

Appendix C.2. Total sockeye return to Chignik Lake by brood year and age, 1915 - 1991.

| Year | Parent Escapment | Age Class | | | | | | | | | | | | | | Return Per Spawner | |
|------|------------------|-----------|-------|-----|---------|-------|-----------|---------|-----|--------|---------|--------|--------|--------|-------|--------------------|-------|
| | | 0.2 | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 3.1 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | Other | | Total |
| 1915 | | | | | | | | | | | | | 4,514 | 4,514 | | 9,028 | |
| 1916 | | | | | | | | | | 11,874 | 690,450 | 9,120 | 2,007 | 0 | 0 | 713,451 | |
| 1917 | | | | | | | 339,637 | 149,163 | 0 | 296 | 274,036 | 0 | 0 | 0 | 0 | 763,132 | |
| 1918 | | | | 0 | 44,358 | 0 | 201,318 | 195,611 | 0 | 0 | 999,888 | 0 | 2,948 | 2,966 | 0 | 1,447,089 | |
| 1919 | | 0 | 0 | 0 | 100,404 | 2,425 | 243,024 | 286,119 | 0 | 2,492 | 423,094 | 8,270 | 0 | 5,828 | 0 | 1,071,656 | |
| 1920 | | 0 | 0 | 0 | 148,914 | 0 | 435,826 | 137,704 | 0 | 2,509 | 300,319 | 20,713 | 0 | 1,567 | 0 | 1,047,552 | |
| 1921 | | 0 | 0 | 0 | 101,251 | 0 | 216,728 | 278,711 | 0 | 4,085 | 193,620 | 2,245 | 955 | 3,396 | 0 | 800,991 | |
| 1922 | 352,807 | 0 | 0 | 0 | 43,667 | 0 | 382,956 | 73,351 | 0 | 0 | 991,979 | 14,972 | 2,886 | 4,175 | 0 | 1,513,986 | 4.3 |
| 1923 | 213,781 | 0 | 0 | 0 | 74,884 | 218 | 410,194 | 245,187 | 0 | 2,360 | 577,390 | 1,111 | 1,647 | 2,376 | 0 | 1,315,367 | 6.2 |
| 1924 | 910,521 | 0 | 0 | 0 | 126,685 | 1,819 | 1,003,422 | 8,350 | 0 | 1,115 | 102,217 | 5,830 | 425 | 55 | 0 | 1,249,918 | 1.4 |
| 1925 | 677,566 | 0 | 0 | 0 | 3,736 | 0 | 51,222 | 195,414 | 0 | 332 | 427,580 | 7,817 | 5,367 | 456 | 0 | 691,924 | 1.0 |
| 1926 | 695,314 | 0 | 0 | 0 | 25,764 | 919 | 279,018 | 304,619 | 273 | 3,461 | 879,220 | 3,821 | 55 | 2,246 | 0 | 1,499,396 | 2.2 |
| 1927 | 429,525 | 0 | 207 | 0 | 113,952 | 1,499 | 951,950 | 100,633 | 0 | 744 | 203,942 | 1,586 | 1,225 | 5,557 | 0 | 1,381,295 | 3.2 |
| 1928 | 1,020,520 | 0 | 0 | 0 | 40,063 | 0 | 353,506 | 77,224 | 0 | 12,047 | 300,603 | 3,129 | 1,042 | 1,618 | 0 | 789,232 | 0.8 |
| 1929 | 914,307 | 0 | 0 | 0 | 16,254 | 0 | 584,561 | 38,873 | 253 | 5,675 | 361,557 | 1,165 | 2,192 | 1,251 | 0 | 1,011,781 | 1.1 |
| 1930 | 359,405 | 0 | 0 | 0 | 26,688 | 0 | 426,128 | 41,867 | 0 | 6,177 | 344,419 | 16,565 | 2,065 | 0 | 0 | 863,909 | 2.4 |
| 1931 | 631,986 | 0 | 0 | 0 | 30,856 | 2,454 | 296,899 | 138,440 | 0 | 3,747 | 264,858 | 0 | 2,678 | 635 | 0 | 740,567 | 1.2 |
| 1932 | 1,113,859 | 0 | 0 | 0 | 24,809 | 0 | 475,759 | 46,764 | 0 | 8,530 | 185,288 | 2,049 | 13,674 | 1,502 | 0 | 758,375 | 0.7 |
| 1933 | 310,088 | 0 | 0 | 0 | 35,679 | 0 | 311,946 | 35,705 | 0 | 48,795 | 321,467 | 0 | 1,267 | 301 | 0 | 755,160 | 2.4 |
| 1934 | 447,642 | 0 | 0 | 0 | 19,716 | 90 | 708,212 | 33,934 | 0 | 4,066 | 88,027 | 969 | 4,299 | 1,026 | 0 | 860,339 | 1.9 |
| 1935 | 462,469 | 0 | 69 | 0 | 37,642 | 308 | 148,352 | 16,893 | 0 | 13,842 | 299,288 | 3,284 | 4,082 | 976 | 0 | 524,736 | 1.1 |
| 1936 | 376,838 | 0 | 0 | 0 | 9,342 | 43 | 504,624 | 57,326 | 0 | 13,186 | 284,707 | 3,117 | 9,326 | 2,233 | 0 | 883,904 | 2.3 |
| 1937 | 406,618 | 0 | 33 | 0 | 31,723 | 145 | 480,250 | 54,435 | 0 | 30,220 | 651,642 | 7,116 | 2,664 | 639 | 0 | 1,258,867 | 3.1 |
| 1938 | 305,827 | 0 | 111 | 0 | 30,123 | 137 | 1,099,657 | 124,382 | 0 | 8,660 | 186,504 | 2,032 | 1,128 | 270 | 0 | 1,453,024 | 4.8 |
| 1939 | 512,754 | 0 | 106 | 0 | 68,919 | 315 | 314,851 | 35,542 | 0 | 3,674 | 79,035 | 859 | 5,420 | 1,305 | 0 | 510,026 | 1.0 |
| 1940 | 152,957 | 0 | 244 | 0 | 19,705 | 90 | 133,474 | 15,039 | 0 | 17,705 | 380,481 | 4,130 | 10,049 | 2,422 | 0 | 583,339 | 3.8 |
| 1941 | 531,904 | 0 | 70 | 0 | 8,342 | 38 | 642,782 | 72,293 | 0 | 32,912 | 706,532 | 7,654 | 2,225 | 537 | 0 | 1,473,385 | 2.8 |
| 1942 | 516,621 | 0 | 30 | 0 | 40,124 | 183 | 1,194,007 | 134,060 | 0 | 7,305 | 156,659 | 1,695 | 4,662 | 1,112 | 0 | 1,539,837 | 3.0 |
| 1943 | 1,205,418 | 0 | 143 | 0 | 74,442 | 340 | 264,830 | 29,686 | 0 | 15,007 | 324,527 | 3,562 | 5,405 | 1,321 | 0 | 719,263 | 0.6 |
| 1944 | 351,212 | 0 | 266 | 0 | 16,492 | 75 | 547,139 | 62,179 | 0 | 18,110 | 385,087 | 4,101 | 2,886 | 711 | 0 | 1,037,046 | 3.0 |
| 1945 | 151,326 | 0 | 59 | 0 | 34,405 | 157 | 652,782 | 72,138 | 0 | 9,784 | 207,054 | 2,186 | 1,246 | 315 | 0 | 980,126 | 6.5 |
| 1946 | 739,884 | 0 | 121 | 0 | 40,246 | 183 | 351,541 | 38,531 | 0 | 4,401 | 91,579 | 937 | 1,531 | 371 | 0 | 529,441 | 0.7 |
| 1947 | 1,393,990 | 0 | 147 | 0 | 21,549 | 98 | 156,343 | 16,644 | 0 | 5,048 | 108,068 | 1,165 | 1,316 | 333 | 0 | 310,711 | 0.2 |
| 1948 | 313,319 | 0 | 80 | 0 | 9,390 | 42 | 182,792 | 20,430 | 0 | 4,658 | 96,858 | 989 | 826 | 0 | 0 | 316,065 | 1.0 |
| 1949 | 574,715 | 0 | 36 | 0 | 11,360 | 52 | 165,402 | 17,581 | 0 | 1,766 | 103,345 | 0 | 496 | 650 | 0 | 300,688 | 0.5 |
| 1950 | 861,070 | 0 | 41 | 0 | 9,924 | 45 | 199,966 | 31,411 | 0 | 2,206 | 245,826 | 407 | 2,903 | 1,820 | 0 | 494,549 | 0.6 |
| 1951 | 490,899 | 0 | 38 | 0 | 33,082 | 0 | 618,729 | 13,748 | 0 | 7,046 | 242,042 | 0 | 1,028 | 0 | 0 | 915,713 | 1.9 |
| 1952 | 260,540 | 0 | 0 | 0 | 22,213 | 0 | 258,747 | 30,836 | 0 | 986 | 229,563 | 0 | 3,932 | 8,403 | 0 | 554,680 | 2.1 |
| 1953 | 221,408 | 0 | 0 | 0 | 9,167 | 428 | 125,399 | 32,350 | 0 | 470 | 396,916 | 1,935 | 934 | 5,424 | 0 | 573,023 | 2.6 |
| 1954 | 277,912 | 0 | 547 | 0 | 2,848 | 0 | 39,658 | 75,361 | 0 | 771 | 418,442 | 804 | 1,661 | 5,069 | 0 | 545,161 | 2.0 |
| 1955 | 201,409 | 0 | 369 | 0 | 32,187 | 0 | 303,988 | 32,708 | 0 | 168 | 363,162 | 1,252 | 0 | 0 | 0 | 733,834 | 3.6 |
| 1956 | 483,024 | 0 | 1,330 | 0 | 12,515 | 0 | 106,327 | 36,113 | 0 | 435 | 221,169 | 0 | 1,349 | 4,781 | 0 | 384,019 | 0.8 |
| 1957 | 328,779 | 0 | 0 | 0 | 17,746 | 622 | 232,393 | 109,475 | 0 | 351 | 332,661 | 2,104 | 1,189 | 1,319 | 0 | 697,860 | 2.1 |
| 1958 | 212,594 | 0 | 1,459 | 0 | 50,630 | 0 | 23,204 | 139,797 | 0 | 0 | 418,960 | 980 | 93 | 432 | 0 | 635,555 | 3.0 |
| 1959 | 308,645 | 0 | 3,286 | 0 | 18,094 | 907 | 109,165 | 81,640 | 227 | 117 | 197,975 | 738 | 689 | 187 | 0 | 413,023 | 1.3 |
| 1960 | 357,230 | 0 | 146 | 0 | 24,446 | 491 | 122,278 | 8,273 | 0 | 1,314 | 210,884 | 141 | 1,618 | 12,824 | 0 | 382,415 | 1.1 |
| 1961 | 254,970 | 0 | 718 | 0 | 1,899 | 799 | 109,935 | 18,702 | 0 | 220 | 401,733 | 2,698 | 5,335 | 2,420 | 0 | 544,458 | 2.1 |

-Continued-

Appendix C.2. (page 2 of 2)

| | | Age Class | | | | | | | | | | | | | | Return Per Spawner | |
|------|-----------|-----------|-------|--------|---------|--------|---------|---------|-----|-------|-----------|--------|--------|---------|-------|--------------------------|------|
| Year | Escapment | 0.2 | 1.1 | 0.3 | 1.2 | 2.1 | 1.3 | 2.2 | 3.1 | 1.4 | 2.3 | 3.2 | 2.4 | 3.3 | Other | Total | |
| 1962 | 324,860 | 0 | 123 | 0 | 4,312 | 0 | 44,074 | 69,811 | 0 | 998 | 692,188 | 1,074 | 1,109 | 0 | 0 | 813,689 | 2.5 |
| 1963 | 200,314 | 0 | 0 | 0 | 5,536 | 1,300 | 103,116 | 68,605 | 0 | 29 | 243,939 | 0 | 1,501 | 867 | 0 | 424,894 | 2.1 |
| 1964 | 166,625 | 0 | 88 | 0 | 6,607 | 4,550 | 24,880 | 65,639 | 0 | 700 | 138,282 | 943 | 241 | 7,193 | 0 | 249,122 | 1.5 |
| 1965 | 163,151 | 0 | 1,636 | 0 | 25,157 | 5,547 | 159,113 | 57,942 | 0 | 450 | 764,971 | 1,210 | 716 | 104,407 | 0 | 1,121,148 | 6.9 |
| 1966 | 183,525 | 0 | 1,715 | 0 | 14,517 | 925 | 353,860 | 35,606 | 0 | 501 | 449,527 | 2,665 | 0 | 18,073 | 0 | 877,388 | 4.8 |
| 1967 | 189,000 | 0 | 501 | 0 | 7,280 | 904 | 85,067 | 33,781 | 0 | 701 | 482,538 | 2,780 | 1,409 | 0 | 0 | 614,961 | 3.3 |
| 1968 | 244,836 | 0 | 1,076 | 0 | 4,166 | 0 | 115,840 | 20,435 | 339 | 668 | 612,758 | 16,385 | 2,691 | 30,092 | 0 | 804,448 | 3.3 |
| 1969 | 132,055 | 0 | 0 | 0 | 1,239 | 1,062 | 89,327 | 284,545 | 297 | 818 | 487,805 | 7,288 | 0 | 16,722 | 0 | 889,104 | 6.7 |
| 1970 | 119,952 | 0 | 0 | 0 | 19,148 | 12,638 | 27,646 | 151,089 | 0 | 1,318 | 461,271 | 12,205 | 0 | 19,870 | 0 | 705,186 | 5.9 |
| 1971 | 232,501 | 0 | 1,575 | 0 | 15,448 | 12,620 | 185,532 | 410,628 | 0 | 236 | 1,898,372 | 4,096 | 2,842 | 13,887 | 0 | 2,545,236 | 10.9 |
| 1972 | 231,270 | 0 | 0 | 0 | 30,087 | 2,445 | 120,639 | 96,178 | 0 | 98 | 718,493 | 30,779 | 267 | 3,698 | 0 | 1,002,684 | 4.3 |
| 1973 | 247,144 | 0 | 0 | 0 | 5,778 | 10,740 | 56,736 | 173,028 | 0 | 0 | 919,784 | 3,852 | 1,248 | 4,756 | 0 | 1,175,921 | 4.8 |
| 1974 | 364,612 | 0 | 4,420 | 0 | 19,284 | 2,764 | 105,493 | 196,981 | 0 | 51 | 677,611 | 2,036 | 2,316 | 9,262 | 2,703 | 1,022,922 | 2.8 |
| 1975 | 314,084 | 0 | 0 | 0 | 24,550 | 7,125 | 123,634 | 185,390 | 0 | 914 | 859,629 | 3,573 | 6,449 | 2,334 | 7,609 | 1,221,206 | 3.9 |
| 1976 | 341,828 | 0 | 1,103 | 0 | 59,255 | 807 | 775,826 | 94,346 | 0 | 2,484 | 499,554 | 0 | 3,117 | 10 | 5,083 | 1,441,585 | 4.2 |
| 1977 | 463,561 | 0 | 252 | 0 | 52,795 | 3,975 | 155,472 | 59,987 | 0 | 1,958 | 1,207,619 | 0 | 2,034 | 789 | 7,477 | 1,492,357 | 3.2 |
| 1978 | 263,009 | 0 | 422 | 0 | 16,755 | 5,822 | 259,993 | 318,606 | 0 | 686 | 278,532 | 490 | 1,752 | 176 | 239 | 883,474 | 3.4 |
| 1979 | 317,889 | 0 | 2,029 | 0 | 102,991 | 5,057 | 281,909 | 28,124 | 0 | 1,235 | 278,237 | 388 | 1,469 | 784 | 3,223 | 705,446 | 2.2 |
| 1980 | 279,729 | 0 | 1,794 | 8,287 | 13,217 | 6,060 | 156,838 | 320,949 | 0 | 632 | 448,135 | 3,096 | 830 | 1,070 | 1,189 | 962,098 | 3.4 |
| 1981 | 301,092 | 0 | 1,116 | 0 | 88,980 | 5,093 | 232,004 | 74,324 | 0 | 664 | 370,421 | 151 | 649 | 74 | 35 | 773,511 | 2.6 |
| 1982 | 305,193 | 0 | 2,542 | 0 | 51,480 | 3,199 | 194,469 | 108,490 | 0 | 740 | 582,904 | 160 | 1,383 | 0 | 301 | 945,668 | 3.1 |
| 1983 | 441,561 | 0 | 0 | 2,715 | 12,125 | 3,824 | 148,143 | 109,807 | 0 | 208 | 1,105,502 | 807 | 11,621 | 76 | 0 | 1,394,829 | 3.2 |
| 1984 | 268,496 | 120 | 914 | 552 | 30,409 | 10,724 | 150,188 | 324,007 | 0 | 2,480 | 1,638,859 | 1,743 | 9,695 | 7,155 | 597 | 2,177,443 | 8.1 |
| 1985 | 369,262 | 98 | 689 | 207 | 18,638 | 16,398 | 174,283 | 161,966 | 0 | 6,682 | 501,843 | 1,161 | | 173 | | 882,138 | 2.4 |
| 1986 | 207,231 | 104 | 2,743 | 13,060 | 179,104 | 321 | 345,786 | 175,958 | | | | | | | | 717,076 | 3.5 |
| 1987 | 214,452 | 6,253 | 686 | 1,066 | 72,172 | 9,757 | | | | | | | | | | 89,934 | |
| 1988 | 255,180 | 0 | 2,430 | | | | | | | | | | | | | 2,430 | |
| 1989 | 557,171 | | | | | | | | | | | | | | | | |
| 1990 | 382,587 | | | | | | | | | | | | | | | | |

APPENDIX D

Emergency Orders

EMERGENCY ORDER NO. 4-F-L-02-91

Issued at: Chignik, Alaska
June 11, 1991

EFFECTIVE DATE: 2:30 P.M.
Tuesday June 11, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 2:30 P.M.
Wednesday June 12, or until
superseded by subsequent
emergency order.

EXPLANATION:

The Chignik Bay, Central and Eastern Districts of the Chignik Management Area, will open to commercial fishing from 2:30 P.M. Tuesday June 11 until 2:30 P.M. Wednesday June 12. Fishing will be allowed up to the regulatory markers at Mensis Point in Chignik Lagoon. Fishing in Chignik Lagoon will be started by a flare launched by ADF&G personnel at approximately 2:30 P.M. Any sets started prior to the launching of the flare will be required to be stern hauled and a citation will be issued. Fishermen are encouraged to monitor VHF channel 6 for timed counts prior to the Chignik Lagoon opening.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 2:30 P.M. Tuesday June 11 until 2:30 P.M. Wednesday June 12.

(b) In the Central and Eastern Districts, salmon may be taken from 2:30 P.M. Tuesday June 11 until 2:30 P.M. Wednesday June 12.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central and Eastern Districts will be open to commercial salmon fishing from 2:30 P.M. Tuesday June 11 until 2:30 P.M. Wednesday June 12.

-continued-

June 11, 1991

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56°17'32" N. lat., 158°11'56" W. long. excluding the waters of Chignik Lagoon, to Coal Cape at 55°53'28" N., lat., 159°00'20" W. long.

(d) The Perryville District includes all waters between Coal Cape at 55°23'28" N. lat., 159°00'20" W. long. and Kupreanof Point at 55°33'55" N. lat., 159°35'50" W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The cumulative salmon escapement through the Chignik River weir as of June 10 was 75,573 fish. The escapement schedule calls for 40,000 fish by June 12. Since the escapement objectives have been achieved a commercial fishery is justified to harvest fish surplus to escapement requirements.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

XXXXXXXXXX

EMERGENCY ORDER NO. 4-F-L-03-91

Issued at: Chignik, Alaska
June 11, 1991

EFFECTIVE DATE: 2:30 P.M.
Tuesday June 11, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until
further notice or until
superseded by subsequent
emergency order.

EXPLANATION:

Due to higher than anticipated escapements at the Chignik weir, commercial salmon fishing in the Chignik Bay, Central and Eastern Districts of the Chignik Management Area, will be extended until further notice from the Tuesday June 11 opening at 2:30 P.M. Fishing will be allowed up to the regulatory markers at Mensis Point in Chignik Lagoon. Fishermen are encouraged to monitor VHF channel 6 for timed counts prior to the Chignik Lagoon opening.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 2:30 P.M. Tuesday June 11 until further notice.

(b) In the Central and Eastern Districts, salmon may be taken from 2:30 P.M. Tuesday June 11 until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central and Eastern Districts will be open to commercial salmon fishing from 2:30 P.M. Tuesday June 11 until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56°17'32" N. lat., 158°11'56" W. long. excluding the waters of Chignik Lagoon, to Coal Cape at 55°53'28" N., lat., 159°00'20" W. long.

continued

June 11, 1991

(d) The Perryville District includes all waters between Coal Cape at 55°23'28" N. lat., 159°00'20" W. long. and Kupreanof Point at 55°33'55" N. lat., 159°35'50" W. long.

Carl I. Rosjer
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The cumulative salmon escapement through the Chignik River weir as of June 10 was 75,573 fish with an estimated 30 - 40,000 salmon behind the weir. A test fishery on June 9 in Chignik Lagoon resulted in 3,160 salmon being caught in eight sets of ten minutes each. This indicates a harvestable surplus in Chignik Lagoon of 50 - 70,000 salmon. Therefore, considering the escapement and harvestable surplus in Chignik Lagoon, an extended fishing period is scheduled for the Tuesday June 11 opening at 2:30 P.M.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

END

EMERGENCY ORDER NO. 4-F-L-04-91

Issued at: Chignik, Alaska
June 17, 1991

EFFECTIVE DATE: 7:00 P.M.
Monday June 17, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 9:00 P.M.
Wednesday June 19, 1991 or
until superceded by
subsequent emergency order.

EXPLANATION:

The commercial fishing regulatory markers for Chignik Lagoon will be moved from Mensis Point to the Hume Point markers effective at 7:00 P.M. today, Monday June 17, 1991.

Based on the daily entry rate of sockeye into Chignik Lagoon and the desired escapement goal of 175,000 - 200,000 by June 20, the commercial salmon fishery in the Chignik Bay, Central and Eastern Districts of the Chignik Management Area will be closed at 9:00 P.M. Wednesday June 19, 1991, until further notice.

Fishermen are notified that this closure may be short in duration and commercial fishing may reopen as early as June 21.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 2:30 P.M. Tuesday June 11 until 9:00 P.M. Wednesday June 19.

(b) In the Central and Eastern Districts, salmon may be taken from 2:30 P.M. Tuesday June 11 until 9:00 P.M. Wednesday June 19.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central and Eastern Districts will be open to commercial salmon fishing from 2:30 P.M. Tuesday June 11 until 9:00 P.M. Wednesday June 19.

continued

June 17, 1991

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56°17'32" N. lat., 158°11'56" W. long. excluding the waters of Chignik Lagoon, to Coal Cape at 55°53'28" N., lat., 159°00'20" W. long.

(d) The Perryville District includes all waters between Coal Cape at 55°23'28" N. lat., 159°00'20" W. long. and Kupreanof Point at 55°33'55" N. lat., 159°35'50" W. long.

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat., 158°35'30" W. long.);

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The cumulative weir count through June 16 was 140,956 sockeye salmon. This escapement number is close to the escapement goal of 175,000 - 200,000 sockeye salmon by June 20. The harvest for the last three days of 142,347 sockeye salmon from Chignik Lagoon indicates a steady influx of fish which would put the escapement on schedule.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

XXXXXXXXXX

EMERGENCY ORDER NO. 4-F-L-05-91

Issued at: Chignik, Alaska
June 19, 1991

EFFECTIVE DATE: 9:00 A.M.
Wednesday, June 19, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 9:00 P.M.
Wednesday June 19, 1991 or
until superceded by
subsequent emergency order.

EXPLANATION:

Commercial fishermen are reminded that the commercial salmon fishery in the Chignik Bay, Central and Eastern Districts of the Chignik Management Area will be closed at 9:00 P.M. Wednesday, June 19, 1991.

Fishermen are notified that there will be a 12 hour notice on the announcement of the next opening.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 2:30 P.M. Tuesday June 11 until 9:00 P.M. Wednesday June 19.

(b) In the Central and Eastern Districts, salmon may be taken from 2:30 P.M. Tuesday June 11 until 9:00 P.M. Wednesday June 19.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central and Eastern Districts will be open to commercial salmon fishing from 2:30 P.M. Tuesday June 11 until 9:00 P.M. Wednesday June 19.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56°17'32" N. lat., 158°11'56" W. long. excluding the waters of Chignik Lagoon, to Coal Cape at 55°53'28" N., lat., 159°00'20" W. long.

June 19, 1991

(d) The Perryville District includes all waters between Coal Cape at 55°23'28" N. lat., 159°00'20" W. long. and Kupreanof Point at 55°33'55" N. lat., 159°35'50" W. long.

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat., 158°35'30" W. long.);

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The cumulative weir count through June 18 is 144,682 sockeye salmon. This escapement number is close to the escapement goal of 175,000 - 200,000 sockeye salmon by June 20. The 12 hour notice will allow the Department to open the fishery quickly during daylight hours and high tides considering current times and sizes of tides to accommodate harvestable numbers of sockeye salmon. Emergency Order 4-F-L-05-91

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

XXXXXXXXXX

EMERGENCY ORDER NO. 4-F-L-06-91

Issued at: Chignik, Alaska
June 22, 1991

EFFECTIVE DATE: 1:00 P.M.
Sunday June 23, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 1:00 P.M.
Monday, June 24, 1991 or
until superceded by
subsequent emergency order.

EXPLANATION:

The Chignik Bay, Central and Eastern Districts of the Chignik Management Area, will open to commercial fishing from 1:00 P.M. Sunday June 23 for 24 hours until 1:00 P.M. Monday June 24. Fishing will be allowed up to the regulatory markers at Hume Point in Chignik Lagoon. Fishing in Chignik Lagoon will be started by a flare launched by ADF&G personnel at approximately 1:00 P.M. Any sets started prior to the launching of the flare will be required to be stern hauled and a citation will be issued. Fishermen are encouraged to monitor VHF channel 6 for a timed countdown prior to the Chignik Lagoon opening. There will be an announcement at 11:00 A.M. Sunday, June 23 for a possible marker movement depending upon escapement rates.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 1:00 P.M. Sunday June 23 until 1:00 P.M. Monday June 24.

(b) In the Central and Eastern Districts, salmon may be taken from 1:00 P.M. Sunday June 23 until 1:00 P.M. Monday June 24.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central and Eastern Districts will be open to commercial salmon fishing from 1:00 P.M. Sunday June 23 until 1:00 P.M. Monday June 24.

5 AAC 15.350 is amended to read:

continued

June 22, 1991

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56°17'32" N. lat., 158°11'56" W. long. excluding the waters of Chignik Lagoon, to Coal Cape at 55°53'28" N., lat., 159°00'20" W. long.

(d) The Perryville District includes all waters between Coal Cape at 55°23'28" N. lat., 159°00'20" W. long. and Kupreanof Point at 55°33'55" N. lat., 159°35'50" W. long.

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat., 158°35'30" W. long.);

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The sockeye salmon escapement has increased to 220,000 fish as of June 22. It is estimated that the escapement is such that schedule of 225 - 250,000 fish for June 22 will be met. Therefore, a commercial fishery is justifiable at this time.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

XXXXXXXXXXXX

EMERGENCY ORDER NO. 4-F-L-07-91

Issued at: Chignik, Alaska
June 23, 1991

EFFECTIVE DATE: 9:00 A.M.
Sunday June 23, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until
further notice or until
superceded by subsequent
emergency order.

EXPLANATION:

In regards to the Chignik commercial salmon fishery, the regulatory markers will remain at Hume Point until further notice for the 1:00 P.M. opening today Sunday, June 23.

REGULATION:

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat., 158°35'30" W. long.);

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

continued

JUSTIFICATION:

The rate of the commercial red salmon harvest for Chignik Lagoon has slowed down the daily escapement rate to less than what was projected. Continuing at this rate the minimum escapement goal of 400,000 for the month of June will not be achieved. To boost the daily escapement rate, the closed water area for Chignik Lagoon will be increased.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-08-91

Issued at: Chignik, Alaska
June 24, 1991

EFFECTIVE DATE: 1:00 P.M.
Monday June 24, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until
further notice or until
superceded by subsequent
emergency order.

EXPLANATION:

Due to higher than anticipated escapements at the Chignik weir, commercial salmon fishing in the Chignik Bay, Central and Eastern Districts of the Chignik Management Area will be extended until further notice from the Sunday, June 23 opening at 1:00 P.M. Fishing will be allowed up to the regulatory markers at Mensis Point in Chignik Lagoon.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 1:00 P.M. Sunday June 23 until further notice.

(b) In the Central and Eastern Districts, salmon may be taken from 1:00 P.M. Sunday June 23 until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central and Eastern Districts will be open to commercial salmon fishing from 1:00 P.M. Sunday June 23 until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56°17'32" N. lat., 158°11'56" W. long. excluding the waters of Chignik Lagoon, to Coal Cape at 55°53'28" N., lat., 159°00'20" W. long.

continued

June 24, 1991

(d) The Perryville District includes all waters between Coal Cape at 55°23'28" N. lat., 159°00'20" W. long. and Kupreanof Point at 55°33'55" N. lat., 159°35'50" W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The escapement rate of Black Lake bound sockeye salmon is not being affected by the fishery in progress. The escapement of 283,057 sockeye salmon as of June 23, is ahead of the June 25 scheduled escapement of 275-325,000 sockeye salmon. Therefore, an extension until further notice is appropriate at this time.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-09-91

Issued at: Chignik, Alaska
July 9, 1991

EFFECTIVE DATE: 6:00 P.M.
Wednesday July 10, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until
further notice or until
superceded by subsequent
emergency order.

EXPLANATION:

The Western and Perryville Districts of the Chignik Management Area will open to commercial salmon fishing effective 6:00 P.M., Wednesday, July 10, 1991 and will close to commercial salmon fishing 6:00 P.M., Friday, July 12, 1991. Fishermen are reminded that all closed water markers for the Chignik Management Area will be as defined in the 1990-1991 Commercial Finfish Regulation booklet.

The Chignik Bay, Central and Eastern Districts of the Chignik Management Area will remain open until further notice. A reminder to all commercial fishermen that the markers in Chignik Lagoon remain at Mensis Point.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 1:00 P.M. Sunday, June 23 until further notice.

(b) In the Central and Eastern Districts, salmon may be taken from 1:00 P.M. Sunday, June 23 until further notice. In the Western and Perryville Districts, salmon may be taken from 6:00 P.M., Wednesday, July 10, until 6:00 P.M., Friday, July 12, 1991.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central and Eastern Districts will be open to commercial salmon fishing from 1:00 P.M., Sunday, June 23, 1991, until further

July 9, 1991

notice. The Western and Perryville Districts will be open to commercial salmon fishing from 6:00 P.M., Wednesday, July 10, until 6:00 P.M., Friday, July 12, 1991.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. All closed water markers for the Chignik Management Area will be as defined in the 1990-1991 Commercial Finfish Regulation booklet.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

Aerial surveys in the Western and Perryville Districts indicate sufficient escapement in streams and minimal build-up of salmon on beaches and in bays to merit a fishery. The escapement goals for the first and second runs have been met, 654,209 and 49,531 respectively for Black Lake and Chignik Lake; therefore, allowing this fishing period for Chignik Bay, Central, and Eastern districts to continue as described in E.O. # 4-F-L-08-91.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-10-91

Issued at: Chignik, Alaska
July 11, 1991

EFFECTIVE DATE: 6:00 P.M.
Thursday July 11, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until
further notice or until
superceded by subsequent
emergency order.

EXPLANATION:

The Mitrofanina Section of the Western District of the Chignik Management Area will close to commercial salmon fishing effective 6:00 P.M. Thursday July 11, 1991, until further notice.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (b) In the Mitrofanina Section of the Western District, salmon may not be taken from 6:00 P.M. Thursday July 11, 1991 until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Mitrofanina Section of the Western District will be closed to commercial salmon fishing from 6:00 P.M. Thursday July 11, 1991 until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (3) Mitrofanina Section: all waters, including Mitrofanina Island between a point on the west side of Dorner (Kuiukta) Bay's entrance at 56°57' N. lat., 158°40' W. long. and Stirni point at 55°54' N., lat., 158° W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

continued

July 11, 1991

JUSTIFICATION:

Fishermen reported large numbers of 100 to 1,000 immature salmon being caught per set in the vicinity of Mitrofanina Island. The small salmon are not marketable, creating a wanton waste situation and contributing to the demise of a future salmon run. A closure in this section is necessary to protect these immature salmon.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-11-91

Issued at: Chignik, Alaska
July 12, 1991

EFFECTIVE DATE: 5:00 P.M.
Saturday July 13, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until
further notice or until
superceded by subsequent
emergency order.

EXPLANATION:

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area will close to commercial salmon fishing effective 5:00 P.M. Saturday July 13, 1991, until further notice.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may not be taken from 5:00 P.M. Saturday July 13, 1991 until further notice.

(b) In the Central and Eastern Districts, salmon may not be taken from 5:00 P.M. Saturday, July 13, 1991 until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central and Eastern Districts will be closed to commercial salmon fishing from 5:00 P.M. Saturday July 13, 1991 until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (a) The Eastern District includes all waters from the southernmost marker 500 yards from the mouth of Abiakchak Lagoon to the eastern boundary of the Chignik area.

(e) The Central District includes all waters, excluding the waters of the Chignik Bay District between a point near Jack Bay at 56°18'17" N. lat., 158°14'54" W. long. and the southernmost marker 500 yards from the mouth of Aniakhak Lagoon.

continued

July 12, 1991

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

This closure is due to low escapement and commercial catches. The second-run escapement of 51,666 has averaged 2,200 sockeye per day for the last five days. At this escapement rate, the scheduled goal of 65 - 75,000 sockeye salmon may not be reached by July 14. Commercial catches for the last three days for the Lagoon averaged 14,000 sockeye.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-12-91

Issued at: Chignik, Alaska
July 27, 1991

EFFECTIVE DATE: 4:00 P.M.
Sunday July 28, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 4:00 P.M.
Tuesday July 30, 1991, or
until superceded by
subsequent emergency order.

EXPLANATION:

The Central, Chignik Bay, Western and Perryville Districts of the Chignik Management Area will open to commercial salmon fishing Sunday, July 28 at 4:00 P.M. and will remain open until Tuesday July 30, 1991 at 4:00 P.M.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 4:00 P.M. Sunday July 28, 1991 until 4:00 P.M. Tuesday July 30, 1991.

(b) In the Central, Western and Perryville Districts, salmon may be taken from 4:00 P.M. Sunday, July 28, 1991 until 4:00 P.M. Tuesday July 30, 1991.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Central, Chignik Bay, Western and Perryville Districts will open to commercial salmon fishing from 4:00 P.M. Sunday July 28, 1991 until 4:00 P.M. Tuesday July 30, 1991

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat, 158°35'30" W. long)

July 27, 1991

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.)

(2) For the Western and Perryville Districts all waters northwest of a line from Alexander Point to Cape Iteki will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofanina Bay, and Humpback Bay.

(3) For Kujulik Bay all waters northwest of a line from 56°38'40" N. lat., 158°50'24" W. long. to the furthest northeast point at Cape Kumliun at 56°33'36" N. lat., 157°49'6" W. long., will be closed to all commercial salmon fishing.

(4) For the Eastern District all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik Area will be closed to all commercial salmon fishing.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The daily sockeye escapement through Chignik weir as of 10:00 P.M. July 26 was 10,493. This brings the cumulative second run sockeye escapement to 188,640. This level of escapement will be adequate to attain the August 1 escapement goal of 200,000 second run sockeye, therefore a commercial fishery is necessary in order to harvest fish surplus to spawning requirements in these open areas.

The closed waters in Chignik Lagoon, Western District, Perryville District, the entire Eastern District, and Kujulik Bay in the Central District are necessary to insure adequate escapement into streams experiencing extreme low water levels.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

EMERGENCY ORDER NO. 4-F-L-13-91

Issued at: Chignik, Alaska
July 29, 1991

EFFECTIVE DATE: 2:00 P.M.
Monday July 29, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until
further notice or until
superceded by subsequent
emergency order.

EXPLANATION:

The Mitrofanina Section of the Western District of the Chignik Management Area will close to commercial salmon fishing effective 2:00 P.M. Monday July 29, 1991, until further notice.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (b) The Mitrofanina Section of the Western District in the Chignik Management Area will close to all commercial salmon fishing at 2:00 P.M. Monday July 29, 1991 until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Mitrofanina Section of the Western District will close to all commercial salmon fishing at 2:00 P.M. Monday July 29, 1991 until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (3) Mitrofanina Section: all waters, including Mitrofanina Island between a point on the west side of Dorner (Kuiukta) Bay's entrance at 56°57' N. lat., 158°40' W. long. and Stirni point at 55°54' N., lat., 158° W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

continued

July 29, 1991

JUSTIFICATION:

Due to numerous reports of small immature salmon being caught per set in the Mitrofanina Section of the Western District in the Chignik Management Area, the Mitrofanina Section will close to all commercial salmon fishing until further notice.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-14-91

Issued at: Chignik, Alaska
July 30, 1991

EFFECTIVE DATE: 8:00 P.M.
Tuesday July 30, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 8:00 P.M.
Wednesday July 30, 1991, or
until superceded by
subsequent emergency order.

EXPLANATION:

The Central, Chignik Bay, Western and Perryville Districts of the Chignik Management Area will remain open to commercial salmon until 8:00 P.M. Wednesday July 31, 1991.

The Central and Chignik Bay Districts will reopen at 12:01 A.M. Monday August 5 and will close at 12:01 A.M. Thursday August 8, 1991. This weekly 3-day fishing period will continue until further notice.

Outside districts will open depending upon aerial assessments and build-up of fish. Announcements will be made to this effect Saturday August 3.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken until 8:00 P.M. Wednesday July 31, 1991. The Chignik Bay District will reopen at 12:01 A.M. Monday August 5 and close at 12:01 A.M. Thursday August 8, 1991 until further notice.

(b) The Perryville, Western and Central Districts will remain open to commercial salmon fishing until 8:00 P.M. Wednesday July 31, 1991. The Central District will reopen at 12:01 A.M. Monday August 5 and close at 12:01 A.M. Thursday August 8, 1991.

continued

July 30, 1991

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) In the Central and Chignik Districts, weekly 3-day fishing periods will start at 12:01 A.M. on Mondays and will close at 12:01 A.M. on thursdays. Outside districts will open depending upon aerial assessments and build-up of fish.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat, 158°35'30" W. long)

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.)

(2) For the Western and Perryville Districts all waters northwest of a line from Alexander Point to Cape Iteki and the Mitrofanina Section will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofanina Bay, and Humpback Bay.

(3) For the Central District, closed waters for Kujulik Bay will be the waters northwest of a line from 56°38'40" N. lat., 158°50'24" W. long. to the furthest point at Cape Kumliun at 56°33'36 N. lat., 157°49'06" W. long.

(4) For the Eastern District all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik Area will be closed to all commercial salmon fishing.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The daily sockeye escapement through Chignik weir as of 10:00 P.M. July 29 was 6,730. This brings the cumulative second run sockeye escapement to 212,115. This level of escapement is more than required per the interim escapement goal schedule and therefore a continued

July 30, 1991

commercial fishery on a weekly 3-day fishing period is necessary in order to harvest fish surplus to spawning requirements.

The closed waters in Chignik Lagoon, Western District, Perryville District, the entire Eastern District, and Kujulik Bay in the Central District are necessary to insure adequate escapement into streams experiencing extreme low water levels.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-15-91

Issued at: Chignik, Alaska
August 4, 1991

EFFECTIVE DATE: 12:01 A.M.
Monday August 5, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Thursday August 8, 1991, or
until superceded by
subsequent emergency order.

EXPLANATION:

The Central, Chignik Bay, Western and Perryville Districts of the Chignik Management Area will open to commercial salmon fishing at 12:01 A.M. Monday August 5, 1991 and will close at 12:01 A.M. Thursday August 8, 1991.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday August 5 until 12:01 A.M. Thursday August 8, 1991.

(b) In the Central, Western and Perryville Districts, salmon may be taken from 12:01 A.M. Monday August 5 until 12:01 A.M. Thursday August 8, 1991.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) In the Central, Chignik Bay, Western and Perryville Districts of the Chignik Management Area, salmon fishing will open at 12:01 A.M. Monday, August 5, 1991 and will close at 12:01 A.M. Thursday August 8, 1991.

This 3-day fishing period will continue on a weekly basis until further notice. Other outside areas will open depending upon aerial assessments and build-up of fish.

continued

August 4, 1991

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat, 158°35'30" W. long)

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.)

(2) For the Western and Perryville Districts all waters northwest of a line from Alexander Point to Cape Iteki and the Mitrofanina Section will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofanina Bay, and Humpback Bay.

(3) Mitrofanina Section: all waters, including Mitrofanina Island between a point on the west side of Dorner (Kuiukta) Bay's entrance at 55°57' N. lat, 158°40' W. long., and Stirni Point at 55°54'50" N. lat., 158°55' W. long.

(4) Closed waters for Kujulik Bay will be the waters northwest of a line from 56°38'40" N. lat., 158°50'24" W. long. to the furthest point at Cape Kumliun at 56°33'36 N. lat., 157°49'06" W. long.

(5) In the Eastern District all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik Area will be closed.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The daily sockeye escapement through Chignik weir as of 10:00 P.M. August 4 was 6,851. This brings the cumulative second run sockeye escapement to 229,903. This level of escapement is more than required per the interim escapement goal schedule and therefore a commercial fishery on a weekly 3-day fishing period is necessary in order to harvest fish surplus to spawning requirements.

continued

August 4, 1991

The closed waters in Chignik Lagoon, Western District, Perryville District, the entire Eastern District, and Kujulik Bay in the Central District are necessary to insure adequate escapement into streams experiencing extreme low water levels.

The Mitrofanina Section of the Western District is closed to protect immature salmon reportedly caught in those waters.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-16-91

Issued at: Chignik, Alaska
August 7, 1991

EFFECTIVE DATE: 10:30 A.M.
Wednesday August 7, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Sunday August 11, 1991, or
until superceded by
subsequent emergency order.

EXPLANATION:

Commercial salmon fishing in the Chignik Bay District of the Chignik Management Area will be extended until 12:01 A.M. Saturday, August 10, 1991.

Commercial salmon fishing in the Western and Perryville Districts of the Chignik Management Area will be extended until 12:01 A.M. Sunday, August 11, 1991.

Commercial salmon fishing in the Central District of the Chignik Management Area will close as scheduled at 12:01 A.M. Thursday, August 8, 1991.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday August 5, 1991 until 12:01 A.M. Saturday August 10, 1991.

(b) In the Central District, salmon may be taken from 12:01 A.M. Monday, August 5, 1991 until 12:01 A.M. Thursday August 8, 1991. In the Western and Perryville Districts, salmon may be taken from 12:01 A.M. Monday August 5, 1991 until 12:01 A.M. Sunday August 11, 1991.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday August 5, 1991 until 12:01 A.M. Saturday August 10, 1991.

August 7, 1991

In the Central District, salmon may be taken from 12:01 A.M. Monday August 5, 1991 until 12:01 A.M. Thursday August 8, 1991. In the Western and Perryville Districts salmon may be taken from 12:01 A.M. Monday August 5, until 12:01 A.M. Sunday August 11, 1991.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat., 158°35'30" W. long.)

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.)

(2) For the Western and Perryville Districts all waters northwest of a line from Alexander Point to Cape Iteki will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofanina Bay, and Humpback Bay. Commercial fishing regulatory markers in the Ivanof Bay Section of the Perryville District will be reduced in Ivanof Bay as follows: from the old cannery dock across to the northeast cliff point at 55°52'28" N. lat., 159°28'18" W. long. Regulatory markers for the northwest portion of Ivanof Bay are as follows: west of a line from 55°53'15" N. lat., 159°32'00" W. long, on the northwest shore to the northeast tip of a sand island at 55°51'30" N. lat., 159°31'00" W. long., to the headland at 55°51'00" N. lat, 159°31'00" W. long.

(3) Mitrofanina Section: all waters between a point on the west side of Dorner (Kuiukta) Bay's entrance at 55°57' N. lat., 158°40' W. long. and Stirni Point at 55°54'50" W. long.

(4) Closed waters for Kujulik Bay will be the waters northwest of a line from 56°38'40" N. lat., 158°50'24" W. long., to the furthest northeast point at Cape Kumliun at 56°33'36" N. lat., 157°49'06" W. long.

(5) For the Eastern District all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik Area will be closed to all commercial salmon fishing.

continued

August 7, 1991

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

Prior to weir removal daily sockeye escapement through Chignik weir as of 10:00 P.M. August 4 was 6,851. This brings the cumulative second run sockeye escapement to 229,903. This level of escapement and average catch of 9,380 sockeye over the last three days is adequate for an extension of the fishing periods.

The closed waters in Chignik Lagoon, Western District, Perryville District, the entire Eastern District, and Kujulik Bay in the Central District are necessary to insure adequate escapement into streams experiencing extreme low water levels.

The Mitrofanina Section of the Western District is closed to protect immature salmon reportedly caught in those waters.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-17-91

Issued at: Chignik, Alaska
August 8, 1991

EFFECTIVE DATE: 4:00 P.M.
Thursday August 8, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Saturday August 10, 1991, or
until superceded by
subsequent emergency order.

EXPLANATION:

Commercial salmon fishing in the Chignik Bay District of the Chignik Management Area will be extended until 12:01 A.M. Saturday, August 10, 1991.

The Western and Perryville Districts of the Chignik Management Area will be closed to all commercial salmon fishing effective at 4:00 P.M. Thursday August 8, 1991.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday August 5, 1991 until 12:01 A.M. Saturday August 10, 1991.

(b) In the Western and Perryville Districts, salmon may be taken from 12:01 A.M. Monday August 5, 1991 until 4:00 P.M. Thursday August 8, 1991.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday August 5, 1991 until 12:01 A.M. Saturday August 10, 1991.

In the Western and Perryville Districts salmon may be taken from 12:01 A.M. Monday August 5, until 4:00 P.M. Thursday August 8, 1991.

continued

August 8, 1991

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat, 158°35'30" W. long.)

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.)

(2) The Western District includes all waters south and west of Jack Point at 56°17'32" N. lat 158°11'56" W. long excluding the waters of Chignik Lagoon to Coal Cape at 55°53'28" N. lat., 159°00'20" W. long.

(3) The Perryville District includes all waters between Coal Cape at 55°53'28" N. lat, 159°00'20" W. long and Kupreanof Point at 55°33'55" N. lat., 159°35'50" W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The closure is primarily due to reports of large amounts of immature sockeye and pink salmon being taken in recent catches. Secondly, there is evidence of a local non-pink salmon market which could lead to wanton waste in the fishery.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-18-91

Issued at: Chignik, Alaska
August 10, 1991

EFFECTIVE DATE: 12:01 A.M.
Monday August 12, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Friday August 16, 1991, or
until superceded by
subsequent emergency order.

EXPLANATION:

The Central, Chignik Bay, Western and Perryville Districts of the Chignik Management Area will be open to all commercial salmon fishing at 12:01 A.M. Monday August 12, 1991 until 12:01 A.M. Friday August 15, 1991.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday August 12 until 12:01 A.M. Friday August 16, 1991.

(b) In the Central, Western and Perryville Districts, salmon may be taken from 12:01 A.M. Monday August 12 until 12:01 A.M. Friday August 16, 1991.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) In the Chignik Bay District of the Chignik Management Area, salmon may be taken from 12:01 A.M. Monday, August 12, 1991 until 12:01 A.M. Friday August 16, 1991.

In the Central, Western and Perryville Districts, salmon may be taken from 12:01 A.M. Monday August 12 until 12:01 A.M. Friday August 16, 1991.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

continued

August 10, 1991

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat., 158°35'30" W. long)

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.)

(2) For the Western and Perryville Districts all waters northwest of a line from Alexander Point to Cape Iteki will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofanina Bay, and Humpback Bay. Commercial fishing regulatory markers in the Ivanof Bay Section of the Perryville District will be reduced in Ivanof Bay as follows: from the old cannery dock across to the northeast cliff point at 55°52'28" N. lat., 159°28'18" W. long. Regulatory markers for the northwest portion of Ivanof Bay are as follows: west of a line from 55°53'15" N. lat., 159°32'00" W. long, on the northwest shore to the northeast tip of a sand island at 55°52'30" N. lat., 159°31'00" W. long., to the headland at 55°51'00" N. lat., 159°31'00" W. long.

(3) Closed waters for Kujulik Bay will be the waters northwest of a line from 56°38'40" N. lat., 158°50'24" W. long. to the furthest point at Cape Kumliun at 56°33'36" N. lat., 157°49'06" W. long.

(4) The Eastern District includes all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik Area.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

A test fishery in areas of reported large numbers of immature salmon was conducted. There were insignificant numbers of immature salmon caught in the test fishery. In six 20 minute sets, 36 immature salmon were caught in 11,600 pounds of money fish, therefore meriting a commercial fishery in those particular areas.

continued

August 10, 1991

Other closed waters in Chignik Lagoon, Western, Perryville Districts, the entire Eastern District and Kujulik Bay in the Central District are necessary to insure adequate escapement into streams experiencing extremely low water levels.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-19-91

Issued at: Chignik, Alaska
August 16, 1991

EFFECTIVE DATE: 12:01 A.M.
Monday August 19, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Friday August 23, 1991, or
until superceded by
subsequent emergency order.

EXPLANATION:

The Central, Chignik Bay, Western and Perryville Districts of the Chignik Management Area will be open to all commercial salmon fishing at 12:01 A.M. Monday August 19, 1991 until 12:01 A.M. Friday August 23, 1991.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday August 19 until 12:01 A.M. Friday August 23, 1991.

(b) In the Central, Western and Perryville Districts, salmon may be taken from 12:01 A.M. Monday August 19 until 12:01 A.M. Friday August 23, 1991.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) In the Chignik Bay District of the Chignik Management Area, salmon may be taken from 12:01 A.M. Monday, August 19, 1991 until 12:01 A.M. Friday August 23, 1991.

In the Central, Western and Perryville Districts, salmon may be taken from 12:01 A.M. Monday August 19 until 12:01 A.M. Friday August 23, 1991.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

continued

August 16, 1991

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N. lat., 158°35'30" W. long)

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N. lat., 158°34'54" W. long.)

(2) For the Western and Perryville Districts all waters northwest of a line from Alexander Point to Cape Iteki will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofan Bay, and Humpback Bay. Commercial fishing regulatory markers in the Ivanof Bay Section of the Perryville District will be reduced in Ivanof Bay as follows: from the old cannery dock across to the northeast cliff point at 55°52'28" N. lat., 159°28'18" W. long. Regulatory markers for the northwest portion of Ivanof Bay are as follows: west of a line from 55°53'15" N. lat., 159°32'00" W. long, on the northwest shore to the northeast tip of a sand island at 55°52'30" N. lat., 159°31'00" W. long., to the headland at 55°51'00" N. lat., 159°31'00" W. long.

(3) For the Central District, closed waters for Kujulik Bay will be the waters northwest of a line from 56°38'40" N. lat., 158°50'24" W. long. to the furthest point at Cape Kumliun at 56°33'36" N. lat., 157°49'06" W. long.

(4) The Eastern District includes all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik Area.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

There were no reports of immature salmon being caught in last week's catches with commercial species maintaining the previous week's catch numbers, therefore allowing a commercial harvest.

Other closed waters in Chignik Lagoon, Western, Perryville Districts, the entire Eastern District and Kujulik Bay in the Central District are necessary to insure adequate escapement into streams experiencing low water levels.

continued

August 16, 1991

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-20-91

Issued at: Chignik, Alaska
August 23, 1991

EFFECTIVE DATE: 12:01 A.M.
Monday August 26, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Friday August 30, 1991, or
until superceded by
subsequent emergency order.

EXPLANATION:

The Central, Chignik Bay, Western and Perryville Districts of the Chignik Management Area will be open to all commercial salmon fishing on a 4-day per week fishing period effective at 12:01 A.M. on Monday until 12:01 A.M. on Friday until further notice.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. on Monday until 12:01 A.M. on Friday on a 4-day per week fishing period until further notice.

(b) In the Central, Western and Perryville Districts, salmon may be taken from 12:01 A.M. on Monday until 12:01 A.M. on Friday on a 4-day per week fishing period until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) In the Chignik Bay District of the Chignik Management Area, salmon may be taken from 12:01 A.M. Monday until 12:01 A.M. on Friday on a 4-day per week fishing period until further notice.

In the Central, Western and Perryville Districts, salmon may be taken from 12:01 A.M. on Monday until 12:01 A.M. on Friday on a 4-day per week fishing period until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

continued

(1) For Chignik Lagoon, regulatory markers will be the Mensis Point Markers.

(2) For the Western and Perryville Districts all waters northwest of a line from Alexander Point to Cape Iteki will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofanina Bay, and Humpback Bay. Commercial fishing regulatory markers in the Ivanof Bay Section of the Perryville District will be reduced in Ivanof Bay as follows: from the old cannery dock across to the northeast cliff point at 55°52'28" N. lat., 159°28'18" W. long. Regulatory markers for the northwest portion of Ivanof Bay are as follows: west of a line from 55°53'15" N. lat., 159°32'00" W. long, on the northwest shore to the northeast tip of a sand island at 55°52'30" N. lat., 159°31'00" W. long., to the headland at 55°51'00" N. lat., 159°31'00" W. long.

(3) For the Central District, closed waters for Kujulik Bay will be the waters northwest of a line from 56°38'40" N. lat., 158°50'24" W. long. to the furthest point at Cape Kumliun at 56°33'36" N. lat., 157°49'06" W. long.

(4) The Eastern District includes all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik Area.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The second run escapement of sockeye salmon to Chignik Lake has been achieved. The pink and chum salmon escapements to some Western and Perryville District streams and the entire Eastern District streams are behind schedule due to extremely low water levels. It is necessary to keep these areas closed. A four day per week fishing period in the remaining open areas will provide necessary catch information to evaluate coho salmon run strength and allow harvest of sockeye salmon surplus to escapement requirements.

continued

August 23, 1991

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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EMERGENCY ORDER NO. 4-F-L-21-91

Issued at: Chignik, Alaska
September 8, 1991

EFFECTIVE DATE: 12:01 A.M.
Monday September 9, 1991

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Saturday September 14, 1991,
or until superceded by
subsequent emergency order.

EXPLANATION:

The Eastern, Central, Western and Perryville Districts of the Chignik Management Area will be open to all commercial salmon fishing on a 3-day per week fishing period effective at 12:01 A.M. on Monday until 12:01 A.M. on Thursday until further notice.

The Chignik Bay District will be open to all commercial salmon fishing on a 5-day per week fishing period effective at 12:01 A.M. on Monday until 12:01 A.M. on Saturday until further notice.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.130. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. on Monday until 12:01 A.M. on Saturday and continue on a 5-day per week basis until further notice.

(b) In the Eastern, Central, Western and Perryville Districts, salmon may be taken from 12:01 A.M. on Monday until 12:01 A.M. on Thursday and continue on a 3-day per week basis until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) For Chignik Lagoon, regulatory markers will be the Mensis Point Markers.

(2) Commercial fishing regulatory markers in the Ivanof Bay Section of the Perryville District will be reduced in Ivanof Bay
continued

as follows: from the old cannery dock across to the northeast cliff point at 55°52'28" N. lat., 159°28'18" W. long. Regulatory markers for the northwest portion of Ivanof Bay are as follows: west of a line from 55°53'15" N. lat., 159°32'00" W. long, on the northwest shore to the northeast tip of a sand island at 55°52'30" N. lat., 159°31'00" W. long., to the headland at 55°51'00" N. lat., 159°31'00" W. long.

Carl L. Rosier
Commissioner

by delegation to:

Alan Quimby
Area Management Biologist

JUSTIFICATION:

The second run escapement of sockeye salmon to Chignik Lake has been achieved. There has been sufficient rainfall in the last two weeks to provide adequate escapement of all species of salmon in the Chignik Management Area. A three day per week fishing period in the Eastern, Central, Western, and Perryville Districts; and a five day per week fishing period in the Chignik Bay District will provide necessary catch information to evaluate coho salmon run strength and allow harvest of sockeye salmon surplus to escapement requirements.

DISTRIBUTION:

Lieutenant Governor; Attorney General; Commissioner of Fish and Game; Director of the Division of Commercial Fisheries; Director, Division of Fish and Wildlife Protection, Kodiak; members of the Alaska Board of Fisheries; Commanding Officer, U.S. Regional Director of the National Marine Fisheries Service; Chignik area commercial fish processors, Kodiak processors affiliated with the Chignik Fishery; local Fish and Game Advisory Committee, Chignik Boat Owners Association; and broadcast over appropriate radio frequencies. Copies may be obtained from the Alaska Department of Fish and Game offices in Chignik and Kodiak.

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APPENDIX E

Tide Tables, 1991

Appendix E. Tide Tables, 1991.

Kodiak tides, 1991.

| Date | ---HIGH TIDE--- | | | ---HIGH TIDE--- | | | ---LOW TIDE--- | | | ---LOW TIDE--- | | |
|------|-----------------|----------|------|-----------------|----------|------|----------------|----------|------|----------------|----------|------|
| | | Time | Feet | | Time | Feet | | Time | Feet | | Time | Feet |
| May | 1 | 3:37 AM | 9.1 | | 4:53 PM | 6.7 | | 10:25 AM | -1.0 | | 10:03 PM | 2.5 |
| | 2 | 4:09 AM | 8.8 | | 5:33 PM | 6.3 | | 11:03 AM | -0.6 | | 10:39 PM | 2.8 |
| | 3 | 4:44 AM | 8.4 | | 6:19 PM | 6.0 | | 11:43 AM | -0.2 | | 11:16 PM | 3.2 |
| | 4 | 5:24 AM | 7.9 | | 7:07 PM | 5.8 | | : | | | 12:25 PM | 0.3 |
| | 5 | 6:08 AM | 7.3 | | 8:03 PM | 5.7 | | 0:04 AM | 3.4 | | 1:15 PM | 0.7 |
| | 6 | 7:01 AM | 6.8 | | 9:01 PM | 5.9 | | 1:03 AM | 3.6 | | 2:08 PM | 1.1 |
| | 7 | 8:16 AM | 6.3 | | 9:56 PM | 6.3 | | 2:23 AM | 3.6 | | 3:02 PM | 1.4 |
| | 8 | 9:36 AM | 6.1 | | 10:58 PM | 6.9 | | 3:43 AM | 3.1 | | 4:00 PM | 1.5 |
| | 9 | 10:50 AM | 6.1 | | 11:01 PM | 7.6 | | 4:52 AM | 2.3 | | 4:50 PM | 1.6 |
| | 10 | 11:57 AM | 6.4 | | : | | | 5:47 AM | 1.3 | | 5:39 PM | 1.7 |
| | 11 | 0:00 AM | 8.3 | | 12:55 PM | 6.7 | | 6:36 AM | 0.2 | | 6:24 PM | 1.7 |
| | 12 | 0:42 AM | 9.1 | | 1:43 PM | 7.1 | | 7:22 AM | -0.9 | | 7:08 PM | 1.7 |
| | 13 | 1:21 AM | 9.7 | | 2:36 PM | 7.3 | | 8:07 AM | -1.7 | | 7:51 PM | 1.7 |
| | 14 | 2:01 AM | 10.2 | | 3:29 PM | 7.4 | | 8:53 AM | -2.3 | | 8:35 PM | 1.8 |
| | 15 | 2:46 AM | 10.5 | | 4:20 PM | 7.3 | | 9:41 AM | -2.6 | | 9:21 PM | 1.9 |
| | 16 | 3:32 AM | 10.4 | | 4:06 PM | 7.2 | | 10:30 AM | -2.5 | | 10:12 PM | 2.1 |
| | 17 | 4:21 AM | 10.1 | | 5:50 PM | 7.1 | | 11:19 AM | -2.1 | | 11:04 PM | 2.3 |
| | 18 | 5:13 AM | 9.5 | | 6:31 PM | 7.0 | | : | | | 12:09 PM | -1.5 |
| | 19 | 6:12 AM | 8.6 | | 7:12 PM | 7.1 | | 0:06 AM | 2.5 | | 1:06 PM | -0.8 |
| | 20 | 7:18 AM | 7.7 | | 8:56 PM | 7.3 | | 1:20 AM | 2.6 | | 2:03 PM | 0.0 |
| | 21 | 8:37 AM | 6.9 | | 9:39 PM | 7.6 | | 2:40 AM | 2.4 | | 3:02 PM | 0.7 |
| | 22 | 10:00 AM | 6.4 | | 10:25 PM | 8.1 | | 4:05 AM | 1.9 | | 3:59 PM | 1.3 |
| | 23 | 11:15 AM | 6.2 | | 11:16 PM | 8.4 | | 5:14 AM | 1.2 | | 4:56 PM | 1.7 |
| | 24 | : | | | 12:06 PM | 6.2 | | 6:15 AM | 0.4 | | 5:43 PM | 2.1 |
| | 25 | 0:11 AM | 8.8 | | 1:51 PM | 6.4 | | 7:00 AM | -0.2 | | 6:31 PM | 2.3 |
| | 26 | 0:51 AM | 9.0 | | 2:37 PM | 6.5 | | 7:43 AM | -0.7 | | 7:13 PM | 2.5 |
| | 27 | 1:27 AM | 9.2 | | 2:21 PM | 6.6 | | 8:21 AM | -1.0 | | 7:53 PM | 2.6 |
| | 28 | 2:04 AM | 9.2 | | 3:23 PM | 6.7 | | 8:59 AM | -1.2 | | 8:31 PM | 2.5 |
| | 29 | 2:38 AM | 9.2 | | 4:13 PM | 6.6 | | 9:34 AM | -1.2 | | 9:09 PM | 2.7 |
| | 30 | 3:15 AM | 9.0 | | 4:01 PM | 6.6 | | 10:09 AM | -1.1 | | 9:45 PM | 2.8 |
| | 31 | 3:48 AM | 8.8 | | 5:47 PM | 6.5 | | 10:44 AM | -0.9 | | 10:23 PM | 2.9 |
| June | 1 | 5:02 AM | 8.5 | | 5:58 PM | 6.5 | | 11:19 AM | -0.6 | | 11:05 PM | 3.1 |
| | 2 | 5:40 AM | 8.0 | | 6:38 PM | 6.4 | | 11:56 AM | -0.2 | | 11:48 PM | 3.2 |
| | 3 | 6:29 AM | 7.5 | | 7:17 PM | 6.5 | | : | | | 12:33 PM | 0.2 |
| | 4 | 7:31 AM | 6.8 | | 8:03 PM | 6.7 | | 0:45 AM | 3.2 | | 1:12 PM | 0.7 |
| | 5 | 8:43 AM | 6.2 | | 8:47 PM | 7.1 | | 1:48 AM | 3.0 | | 1:58 PM | 1.2 |
| | 6 | 9:07 AM | 5.7 | | 9:33 PM | 7.5 | | 3:00 AM | 2.6 | | 2:48 PM | 1.6 |
| | 7 | 10:22 AM | 5.5 | | 10:22 PM | 8.1 | | 4:09 AM | 1.8 | | 3:41 PM | 2.0 |
| | 8 | 11:30 AM | 5.6 | | 11:12 PM | 8.7 | | 5:12 AM | 0.9 | | 4:37 PM | 2.3 |
| | 9 | : | | | 12:31 PM | 6.0 | | 6:11 AM | -0.2 | | 5:35 PM | 2.4 |
| | 10 | 0:00 AM | 9.4 | | 1:31 PM | 6.4 | | 7:03 AM | -1.2 | | 6:31 PM | 2.4 |
| | 11 | 0:51 AM | 10.0 | | 2:24 PM | 6.8 | | 7:54 AM | -2.0 | | 7:26 PM | 2.3 |
| | 12 | 1:40 AM | 10.5 | | 3:13 PM | 7.1 | | 8:41 AM | -2.6 | | 8:19 PM | 2.1 |
| | 13 | 2:31 AM | 10.7 | | 4:02 PM | 7.4 | | 9:31 AM | -2.8 | | 9:11 PM | 1.9 |
| | 14 | 3:23 AM | 10.6 | | 4:47 PM | 7.6 | | 10:18 AM | -2.7 | | 10:06 PM | 1.9 |
| | 15 | 4:12 AM | 10.2 | | 5:36 PM | 7.7 | | 11:03 AM | -2.3 | | 11:03 PM | 1.8 |
| | 16 | 5:07 AM | 9.4 | | 6:25 PM | 7.9 | | 11:50 AM | -1.7 | | : | |
| | 17 | 6:03 AM | 8.5 | | 7:14 PM | 8.0 | | 0:03 AM | 1.9 | | 12:38 PM | -0.8 |
| | 18 | 7:03 AM | 7.4 | | 8:06 PM | 8.1 | | 1:07 AM | 1.9 | | 1:24 PM | 0.1 |
| | 19 | 8:11 AM | 6.4 | | 8:58 PM | 8.2 | | 2:21 AM | 1.8 | | 2:13 PM | 1.1 |
| | 20 | 9:30 AM | 5.7 | | 9:52 PM | 8.3 | | 3:34 AM | 1.5 | | 3:06 PM | 1.9 |
| | 21 | 10:54 AM | 5.4 | | 10:45 PM | 8.4 | | 4:47 AM | 1.0 | | 4:02 PM | 2.5 |
| | 22 | 12:11 PM | 5.4 | | 11:34 PM | 8.5 | | 5:51 AM | 0.5 | | 5:01 PM | 2.9 |
| | 23 | : | | | 1:09 PM | 5.6 | | 6:45 AM | 0.0 | | 5:57 PM | 3.1 |
| | 24 | 0:20 AM | 8.7 | | 1:58 PM | 5.9 | | 7:27 AM | -0.5 | | 6:48 PM | 3.1 |
| | 25 | 1:03 AM | 8.9 | | 2:37 PM | 6.2 | | 8:09 AM | -0.8 | | 7:30 PM | 2.9 |
| | 26 | 1:45 AM | 9.0 | | 3:15 PM | 6.4 | | 8:44 AM | -1.0 | | 8:13 PM | 2.9 |
| | 27 | 2:21 AM | 9.1 | | 3:51 PM | 6.6 | | 9:18 AM | -1.2 | | 8:51 PM | 2.7 |
| | 28 | 2:59 AM | 9.0 | | 4:23 PM | 6.8 | | 9:51 AM | -1.2 | | 9:30 PM | 2.6 |
| | 29 | 3:31 AM | 8.9 | | 4:55 PM | 6.9 | | 10:23 AM | -1.1 | | 10:09 PM | 2.6 |
| | 30 | 4:07 AM | 8.6 | | 5:27 PM | 7.0 | | 10:52 AM | -0.8 | | 10:49 PM | 2.5 |
| July | 1 | 4:42 AM | 8.1 | | 5:58 PM | 7.2 | | 11:24 AM | -0.5 | | 11:31 PM | 2.5 |
| | 2 | 5:19 AM | 7.6 | | 6:30 PM | 7.3 | | 11:56 AM | 0.0 | | : | |
| | 3 | 6:03 AM | 6.9 | | 7:06 PM | 7.5 | | 0:19 AM | 2.4 | | 12:28 PM | 0.6 |
| | 4 | 6:55 AM | 6.2 | | 7:47 PM | 7.7 | | 1:14 AM | 2.2 | | 1:04 PM | 1.2 |
| | 5 | 7:59 AM | 5.5 | | 8:34 PM | 8.0 | | 2:18 AM | 1.9 | | 1:46 PM | 1.8 |
| | 6 | 9:29 AM | 5.1 | | 9:30 PM | 8.4 | | 3:30 AM | 1.4 | | 2:41 PM | 2.4 |
| | 7 | 11:01 AM | 5.1 | | 10:33 PM | 8.9 | | 4:43 AM | 0.6 | | 3:50 PM | 2.8 |
| | 8 | 12:18 PM | 5.5 | | 1:35 PM | 9.4 | | 5:49 AM | -0.3 | | 5:01 PM | 2.9 |

-Continued-

Appendix E. (page 2 of 3)

Kodiak tides, 1991.

| Date | ---HIGH TIDE--- | | | ---HIGH TIDE--- | | | ---LOW TIDE--- | | | ---LOW TIDE--- | | |
|-------|-----------------|----------|------|-----------------|------|--|----------------|------|--|----------------|------|--|
| | Time | Feet | | Time | Feet | | Time | Feet | | Time | Feet | |
| July | 9 | : | | 1:21 PM | 6.0 | | 6:50 AM | -1.2 | | 6:10 PM | 2.7 | |
| | 10 | 0:34 AM | 10.0 | 2:12 PM | 6.6 | | 7:43 AM | -2.0 | | 7:13 PM | 2.3 | |
| | 11 | 1:30 AM | 10.4 | 2:58 PM | 7.2 | | 8:31 AM | -2.5 | | 8:10 PM | 1.9 | |
| | 12 | 2:22 AM | 10.7 | 3:43 PM | 7.7 | | 9:17 AM | -2.7 | | 9:04 PM | 1.4 | |
| | 13 | 3:14 AM | 10.5 | 4:25 PM | 8.2 | | 10:00 AM | -2.6 | | 9:57 PM | 1.1 | |
| | 14 | 4:03 AM | 10.0 | 5:07 PM | 8.5 | | 10:42 AM | -2.1 | | 10:52 PM | 0.9 | |
| | 15 | 4:55 AM | 9.2 | 5:49 PM | 8.6 | | 11:21 AM | -1.4 | | 11:45 PM | 0.9 | |
| | 16 | 5:45 AM | 8.2 | 6:33 PM | 8.6 | | : | | | 1:01 PM | -0.4 | |
| | 17 | 6:40 AM | 7.1 | 7:17 PM | 8.5 | | 0:43 AM | 1.0 | | 12:42 PM | 0.6 | |
| | 18 | 7:42 AM | 6.0 | 8:06 PM | 8.2 | | 1:46 AM | 1.2 | | 1:24 PM | 1.6 | |
| | 19 | 8:59 AM | 5.2 | 9:00 PM | 8.0 | | 2:57 AM | 1.3 | | 2:10 PM | 2.4 | |
| | 20 | 10:30 AM | 4.9 | 10:02 PM | 7.9 | | 4:14 AM | 1.1 | | 3:09 PM | 3.1 | |
| | 21 | 11:54 AM | 5.0 | 11:01 PM | 8.0 | | 5:27 AM | 0.8 | | 4:21 PM | 3.5 | |
| | 22 | 12:58 PM | 5.3 | 11:59 PM | 8.2 | | 6:26 AM | 0.4 | | 5:30 PM | 3.5 | |
| | 23 | : | | 1:43 PM | 5.7 | | 7:11 AM | -0.1 | | 6:29 PM | 3.3 | |
| | 24 | 0:45 AM | 8.5 | 2:19 PM | 6.1 | | 7:50 AM | -0.5 | | 7:16 PM | 3.0 | |
| | 25 | 1:27 AM | 8.8 | 2:51 PM | 6.5 | | 8:26 AM | -0.8 | | 7:59 PM | 2.6 | |
| | 26 | 2:06 AM | 8.9 | 3:23 PM | 6.9 | | 8:55 AM | -1.0 | | 8:38 PM | 2.3 | |
| | 27 | 2:41 AM | 9.0 | 3:51 PM | 7.2 | | 9:26 AM | -1.0 | | 9:13 PM | 2.0 | |
| | 28 | 3:16 AM | 8.9 | 4:18 PM | 7.5 | | 9:54 AM | -1.0 | | 9:49 PM | 1.8 | |
| | 29 | 3:51 AM | 8.6 | 4:45 PM | 7.7 | | 10:20 AM | -0.7 | | 10:27 PM | 1.6 | |
| | 30 | 4:26 AM | 8.1 | 5:13 PM | 7.9 | | 10:49 AM | -0.3 | | 11:07 PM | 1.3 | |
| | 31 | 5:02 AM | 7.6 | 5:42 PM | 8.0 | | 11:17 AM | 0.2 | | 11:50 PM | 1.3 | |
| Aug. | 1 | 5:45 AM | 6.9 | 6:14 PM | 8.2 | | 11:46 AM | 0.8 | | : | | |
| | 2 | 6:33 AM | 6.1 | 6:56 PM | 8.2 | | 0:40 AM | 1.3 | | 12:21 PM | 1.5 | |
| | 3 | 7:36 AM | 5.4 | 7:46 PM | 8.3 | | 1:42 AM | 1.2 | | 1:03 PM | 2.2 | |
| | 4 | 9:09 AM | 4.8 | 8:52 PM | 8.4 | | 2:55 AM | 1.0 | | 2:02 PM | 2.8 | |
| | 5 | 10:50 AM | 4.9 | 10:08 PM | 8.6 | | 4:21 AM | 0.5 | | 3:21 PM | 3.2 | |
| | 6 | 12:11 PM | 5.4 | 11:23 PM | 9.1 | | 5:35 AM | -0.2 | | 4:48 PM | 3.1 | |
| | 7 | : | | 1:08 PM | 6.2 | | 6:35 AM | -1.0 | | 6:05 PM | 2.6 | |
| | 8 | 0:26 AM | 9.7 | 1:53 PM | 7.0 | | 7:27 AM | -1.6 | | 7:08 PM | 1.9 | |
| | 9 | 1:25 AM | 10.1 | 2:35 PM | 7.7 | | 8:14 AM | -2.0 | | 8:04 PM | 1.2 | |
| | 10 | 2:17 AM | 10.3 | 3:16 PM | 8.4 | | 8:54 AM | -2.1 | | 8:54 PM | 0.5 | |
| | 11 | 3:06 AM | 10.1 | 3:53 PM | 8.8 | | 9:35 AM | -1.9 | | 9:44 PM | 0.1 | |
| | 12 | 3:53 AM | 9.6 | 4:31 PM | 9.1 | | 10:11 AM | -1.4 | | 10:33 PM | -0.1 | |
| | 13 | 4:39 AM | 8.8 | 5:07 PM | 9.1 | | 10:47 AM | -0.6 | | 11:19 PM | 0.0 | |
| | 14 | 5:26 AM | 7.8 | 5:48 PM | 8.9 | | 11:24 AM | 0.3 | | : | | |
| | 15 | 6:17 AM | 6.8 | 6:27 PM | 8.5 | | 0:11 AM | 0.3 | | 11:59 AM | 1.2 | |
| | 16 | 7:10 AM | 5.8 | 7:12 PM | 8.1 | | 1:07 AM | 0.8 | | 12:38 PM | 2.1 | |
| | 17 | 8:25 AM | 5.0 | 8:08 PM | 7.6 | | 2:11 AM | 1.2 | | 1:20 PM | 2.9 | |
| | 18 | 10:03 AM | 4.7 | 9:15 PM | 7.4 | | 3:28 AM | 1.4 | | 2:22 PM | 3.5 | |
| | 19 | 11:37 AM | 4.9 | 10:32 PM | 7.4 | | 4:51 AM | 1.2 | | 3:48 | 3.8 | |
| | 20 | 12:36 PM | 5.3 | 11:35 PM | 7.7 | | 5:59 AM | 0.8 | | 5:12 PM | 3.6 | |
| | 21 | : | | 1:15 PM | 5.8 | | 6:44 AM | 0.4 | | 6:13 PM | 3.2 | |
| | 22 | 0:26 AM | 8.1 | 1:46 PM | 6.4 | | 7:22 AM | 0.0 | | 7:03 PM | 2.6 | |
| | 23 | 1:11 AM | 8.4 | 2:15 PM | 6.9 | | 7:54 AM | -0.3 | | 7:40 PM | 2.1 | |
| | 24 | 1:50 AM | 8.6 | 2:43 PM | 7.4 | | 8:23 AM | -0.6 | | 8:20 PM | 1.5 | |
| | 25 | 2:25 AM | 8.7 | 3:09 PM | 7.8 | | 8:51 AM | -0.6 | | 8:54 PM | 1.0 | |
| | 26 | 3:00 AM | 8.7 | 3:34 PM | 8.2 | | 9:19 AM | -0.5 | | 9:29 PM | 0.6 | |
| | 27 | 3:34 AM | 8.4 | 4:02 PM | 8.5 | | 9:45 AM | -0.2 | | 10:05 PM | 0.3 | |
| | 28 | 4:10 AM | 8.0 | 4:28 PM | 8.6 | | 10:13 AM | 0.2 | | 10:43 PM | 0.2 | |
| | 29 | 4:47 AM | 7.4 | 5:00 PM | 8.7 | | 10:39 AM | 0.7 | | 11:27 PM | 0.2 | |
| | 30 | 5:31 AM | 6.8 | 5:34 PM | 8.7 | | 1:13 AM | 1.4 | | : | | |
| | 31 | 6:22 AM | 6.0 | 6:17 PM | 8.5 | | 0:17 AM | 0.3 | | 11:49 AM | 2.0 | |
| Sept. | 1 | 7:27 AM | 5.3 | 7:15 PM | 8.3 | | 1:20 AM | 0.6 | | 12:35 PM | 2.7 | |
| | 2 | 9:05 AM | 4.9 | 8:29 PM | 8.1 | | 2:36 AM | 0.7 | | 1:43 PM | 3.2 | |
| | 3 | 10:48 AM | 5.2 | 9:59 PM | 8.2 | | 4:02 AM | 0.5 | | 3:23 PM | 3.4 | |
| | 4 | 11:54 AM | 5.9 | 11:18 PM | 8.6 | | 5:18 AM | 0.0 | | 4:56 PM | 3.0 | |
| | 5 | : | | 12:45 PM | 6.7 | | 6:18 AM | -0.6 | | 6:07 PM | 2.1 | |
| | 6 | 0:21 AM | 9.1 | 1:27 PM | 7.6 | | 7:05 AM | -1.0 | | 7:05 PM | 1.1 | |
| | 7 | 1:19 AM | 9.4 | 2:06 PM | 8.4 | | 7:46 AM | -1.2 | | 7:58 PM | 0.2 | |
| | 8 | 2:08 AM | 9.5 | 2:42 PM | 9.0 | | 8:25 AM | -1.1 | | 8:44 PM | -0.4 | |
| | 9 | 2:54 AM | 9.3 | 3:17 PM | 9.4 | | 9:04 AM | -0.8 | | 9:29 PM | -0.8 | |
| | 10 | 3:39 AM | 8.9 | 3:52 PM | 9.5 | | 9:38 AM | -0.3 | | 10:11 PM | -0.9 | |
| | 11 | 4:23 AM | 8.2 | 4:26 PM | 9.4 | | 10:13 AM | 0.4 | | 10:55 PM | -0.7 | |
| | 12 | 5:08 AM | 7.4 | 5:02 PM | 9.0 | | 10:46 AM | 1.2 | | 11:39 PM | -0.2 | |
| | 13 | 5:53 AM | 6.6 | 5:37 PM | 8.5 | | 11:20 AM | 1.9 | | : | | |
| | 14 | 6:46 AM | 5.7 | 6:19 PM | 7.9 | | 0:27 AM | 0.4 | | 11:56 AM | 2.7 | |
| | 15 | 7:52 AM | 5.1 | 7:15 PM | 8.3 | | 1:25 AM | 1.0 | | 12:41 PM | 3.3 | |

-Continued-

Appendix E. (page 3 of 3)

Kodiak tides, 1991.

| Date | ---HIGH TIDE--- | | ---HIGH TIDE--- | | ---LOW TIDE--- | | ---LOW TIDE--- | |
|----------|-----------------|------|-----------------|------|----------------|------|----------------|------|
| | Time | Feet | Time | Feet | Time | Feet | Time | Feet |
| Sept. 16 | 9:25 AM | 4.8 | 8:26 PM | 6.9 | 2:39 AM | 1.4 | 1:43 PM | 3.8 |
| 17 | 10:57 AM | 5.1 | 9:52 PM | 6.8 | 4:02 AM | 1.5 | 3:25 PM | 3.9 |
| 18 | 11:54 AM | 5.5 | 11:06 PM | 7.1 | 5:12 AM | 1.2 | 4:53 PM | 3.6 |
| 19 | : | | 12:36 PM | 6.1 | 6:02 AM | 0.9 | 5:54 PM | 2.9 |
| 20 | 0:00 AM | 7.4 | 1:04 PM | 6.8 | 6:39 AM | 0.6 | 6:39 PM | 2.2 |
| 21 | 0:47 AM | 7.8 | 1:29 PM | 7.4 | 7:11 AM | 0.3 | 7:21 PM | 1.4 |
| 22 | 1:27 AM | 8.1 | 1:57 PM | 8.0 | 7:40 AM | 0.2 | 7:56 PM | 0.6 |
| 23 | 2:06 AM | 8.2 | 2:23 PM | 8.5 | 8:10 AM | 0.2 | 8:32 PM | 0.0 |
| 24 | 2:42 AM | 8.2 | 2:51 PM | 8.9 | 8:40 AM | 0.3 | 9:07 PM | -0.6 |
| 25 | 3:20 AM | 8.1 | 3:20 PM | 9.2 | 9:09 AM | 0.6 | 9:45 PM | -0.8 |
| 26 | 3:59 AM | 7.7 | 3:51 PM | 9.4 | 9:41 AM | 0.9 | 10:24 PM | -0.9 |
| 27 | 4:40 AM | 7.2 | 4:26 PM | 9.3 | 10:13 AM | 1.4 | 11:10 PM | -0.8 |
| 28 | 5:27 AM | 6.6 | 5:05 PM | 9.1 | 10:49 AM | 2.0 | : | |
| 29 | 6:24 AM | 6.0 | 5:53 PM | 8.7 | 0:02 AM | -0.5 | 11:32 AM | 2.5 |
| 30 | 7:34 AM | 5.5 | 6:57 PM | 8.2 | 1:02 AM | 0.0 | 12:29 PM | 3.1 |

APPENDIX F

1991 Salmon Regulations

CHIGNIK AREA

CHAPTER 15.—CHIGNIK AREA

ARTICLE 1.—DESCRIPTION OF AREA

5 AAC 15.001. APPLICATION OF THIS CHAPTER. Requirements set forth in this chapter apply to commercial fishing only, unless otherwise specified. Subsistence fishing regulations affecting commercial fishing vessels or affecting any other commercial fishing activity are set forth in the subsistence fishing regulations in 5 AAC 01 and 5 AAC 02.

5 AAC 15.100. DESCRIPTION OF AREA. The Chignik Area includes all waters of Alaska on the south side of the Alaska Peninsula enclosed by 156°20'13" W.long., (the longitude of the southern entrance to Imuya Bay near Kilokak Rocks) and a line extending 135° southeast from Kupreanof Point.

ARTICLE 2.—FISHING DISTRICTS

5 AAC 15.200. FISHING DISTRICTS. (a) The Eastern District includes all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik area

(1) Agripina Section: all waters between Kilokak Rocks at 57°11'22" N.lat., 156°20'13" W.long., and Cape Providence at 56°58'40" N.lat., 156°33'28" W.long.;

(2) Chignagak Section: all waters between Cape Providence at 56°58'40" N.lat., 156°33'28" W.long., and Cape Kuyuyukak at 56°53'54" N.lat., 156°49'43" W.long.;

(3) Nakalilok-Yantarni Section: all waters between Cape Kuyuyukak at 56°53'54" N.lat., 156°49'43" W.long., and Cape Kunmik at 56°45'53" N.lat., 157°11'53" W.long.;

(4) Big River Section: all waters of Amber and Aniakchak Bays bounded by 157°11'53" W.long., and the latitude of the southernmost marker 500 yards from the mouth of Aniakchak Lagoon;

(b) The Chignik Bay District includes all waters of Chignik Bay and Lagoon west of a line from a point near Jack Bay at 56°18'17" N. lat., 158°14'54" W. long., to Neketa Creek at 56°24'10" N.lat., 158°27'37" W.long.

(c) The Western District includes all waters south and west of Jack point at 56°17'32" N.lat., 158°11'56" W.long., excluding the waters of Chignik Lagoon, to Coal Cape at 55°53'28" N.lat., 159°00'20" W.long.

(1) Castle Cape Section: all waters between Jack Point at 56°17'32" N.lat., 158°11'56" W.long. and Cape Ikli at 55°58'45" N.lat., 158°30' W.long.;

(2) Dorner Bay Section: all waters between Cape Ikli at 55°58'45" N.lat., 158°30' W.long., and a point on the west side of Dorner (Kuiukta) Bay's entrance at 55°57' N.lat., 158°40' W.long.;

CHIGNIK AREA

(3) Mitrofanina Section: all waters, including Mitrofanina Island between a point on the west side of Dorner (Kuiukta) Bay's entrance at 55°57' N.lat., 158°40' W.long., and Stirni Point at 55°54'50" N.lat., 158°55' W.long.;

(4) Anchor Bay Section: all waters between Stirni Point at 55°54'50" N.lat., 158°55' W.long., and Coal Cape at 55°53'28" N.lat., 159°00'20" W.long.

(d) The Perryville District includes all waters between Coal Cape at 55°53'28" N.lat., 159°00'20" W.long. and Kupreanof Point at 55°33'55" N.lat., 159°35'50" W.long.

(1) Perryville Section: all waters including Chiachi Islands, between Coal Cape at 55°53'28" N.lat., 159°00'20" W.long., and Coal Point at 55°51'31" N.lat., 159°18'50" W.long.;

(2) Humpback Bay Section: all waters including Paul and Jacob islands, between Coal Point at 55°51'34" N.lat., 159°18'50" W.long., and Alexander Point at 55°47'22" N.lat., 159°24'34" W.long.;

(3) Ivanof Bay Section: all waters between Alexander Point at 55°47'22" N.lat., 159°24'34" W.long., and Kupreanof Point at 55°33'55" N.lat., 159°35'50" W.long.

(e) The Central District includes all waters, excluding the waters of the Chignik Bay district between a point near Jack Bay at 56°18'17" N.lat., 158°14'54" W.long., and the southernmost marker 500 yards from the mouth of Aniakchak Lagoon.

(1) Cape Kumlik Section: all waters, including Sutwik Island, between the latitude of the southernmost marker 500 yards from the mouth of Aniakchak Lagoon and 157°40'25" W.long., on the southwest side of Cape Kumlik;

(2) Kujulik Section: all waters between a point on the southwest side of Cape Kumlik at 56°36'32" N.lat., 157°40'25" W.long., and a point on Cape Kumliun at 56°28'34" N.lat., 157°51'26" W.long.;

(3) Outer Chignik Bay Section: all waters including Nakchamik Island between a point on Cape Kumliun at 56°28'34" N.lat., 157°51'26" W.long., and a point near Jack Bay at 56°18'17" N.lat., 158°14'54" W.long., excluding the Chignik Bay District.

ARTICLE 3.—SALMON FISHERY

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken only from June 1 through October 31.

(b) The Perryville, Western, Central and Eastern Districts are opened by emergency order.

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) Salmon fishing periods shall be established by emergency order.

5 AAC 15.330. GEAR. (a) Salmon may be taken only by purse seine or hand purse seine.

CHIGNIK AREA

5 AAC 15.332. SEINE SPECIFICATIONS AND OPERATION. (a) In the Eastern, Central, Western and Perryville Districts, no purse seine less than 100 fathoms or more than 225 fathoms in length may be used.

(b) In the Eastern, Central, Western and Perryville Districts, hand purse seines may not be less than 100 fathoms or more than 225 fathoms in length.

(c) In the Chignik Bay District, purse seines and hand purse seines may not be less than 100 fathoms or more than 125 fathoms in length.

(d) No seine may be less than three fathoms in depth.

(e) No lead may be more than 75 fathoms in length. The aggregate length of seine and lead may not be more than 225 fathoms in the Eastern, Central, Western and Perryville Districts.

(f) When a purse seine or hand purse seine is in the water for the purpose of taking fish, the seine shall be attached to the licensed vessel operating the gear.

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N.lat., 158°35'30" W.long.);

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N.lat., 158°34'54" W.long.);

(2) Kilokak Rocks Bay: northwest of a line from the southern entrance of the bay at 57°09'50" N.lat., 156°20'40" W.long., then to the opposite shore 500 yards northeast of the mouth of Kilokak Rocks Creek at 57°10'07" N.lat., 156°20'40" W.long.;

(3) Agripina River: west of a line from 57°06'46" N.lat., 156°28' W.long., to 57°06'35" N.lat., 156°28'30" W.long.;

(4) Chiginagak Bay: north of a line from 57°00'33" N.lat., 156°45'38" W.long., to 57°01'48" N.lat., 156°41'51" W.long.;

(5) Nakalilok Lagoon: the lagoon and within 500 yards of the entrance;

(6) Yantarni Lagoon: the lagoon and within 500 yards of the entrance;

(7) Aniakchak River: northwest of a line from approximately 500 yards northeast of the mouth at 56°45'43" N.lat., 157°28'46" W.long., to a marker on the southern tip of the island directly off the mouth and then to approximately 1,000 yards southwest of the mouth at 56°45'20" N.lat., 157°31' W.long.;

(8) Aniakchak Lagoon: the lagoon and within 500 yards of the entrance;

CHIGNIK AREA

(9) Kujulik Bay: the southwest end of the bay southwest of a line from 56°35'51" N. lat., 157°59' W. long., to the opposite shore at 56°34'30" N. lat., 157°57'30" W. long.;

(10) Portage Bay: west of a line from 56°11'40" N. lat., 158°33' W. long., to 56°10'38" N. lat., 158°33' W. long.;

(11) Ivan Bay: north of a line from the marker on the northwest shore 1,000 yards from the stream mouth to the marker on the southeast shore 750 yards from the stream mouth;

(12) Humpback Bay: within 1,000 yards of the terminus of Humpback Bay stream (275-502) at 55°52'30" N. lat., 159°20' W. long.;

(13) Ivanof Bay: all waters northwest of a line from a point on the northeast shore at 55°52'28" N. lat., 159°28'18" W. long. to a point on the north end of the spit at 55°51' N. lat., 159°30'54" W. long. (all waters northwest of Road Island are closed);

(14) Alfred Creek (271-104): before August 1, the 500 yard closure at the terminus does not apply; the 500 yard closure does apply from August 1 to the end of the salmon fishing season;

(15) Dago Frank Creek (271-105): before August 1, the 500 yard closure at the terminus does not apply; the 500 yard closure does apply from August 1 to the end of the salmon fishing season;

(16) Hook Bay: northwest of a line from the tip of Hook Bay spit at 56°30'07" N. lat., 158°08'04" W. long., to a point on the north side of the bay at 56°31'07" N. lat., 158°07'32" W. long.

(17) Unnamed stream at 55°49'02" N. lat., 159°24'15" W. long.; the 500 yard closure at the terminus does not apply.

(18) Lake Bay: all waters southwest of a line drawn at the entrance to Lake Bay at 56°18'51" N. lat., 158°17'30" W. long. extending across the entrance to Lake Bay;

(19) Mud Bay: all waters southwest of a line from 56°19'28" N. lat., 158°25'12" W. long. extending across the entrance to Mud Bay.

5 AAC 15.355. SALMON PROCESSOR AND BUYER REPORTING REQUIREMENTS. The operator of a floating salmon processing vessel or tender, or a shorebased processing operation, and a company employing aircraft used for transporting salmon, shall report in person, or by radio or telephone, to a local representative of the department located in the management area of intended operation before the start of processing or buying operations. The report must include the location and the date of intended operation, and identify and describe each vessel or other method of transport employed in hauling or processing salmon.

5 AAC 15.360. EASTERN DISTRICT SALMON MANAGEMENT PLAN. (a) The department shall open and close the Eastern District for commercial salmon fishing con-

CHIGNIK AREA

currently with the Chignik Bay and Central Districts. The department may close the Eastern District for the period between the first (Black Lake) and second (Chignik Lake) sockeye salmon runs.

(b) The department shall close the Eastern District on July 15 to allow evaluation of the strength of the pink and chum salmon runs.

(c) The department shall close the Eastern district when it determines that the salmon being harvested in that district are from stocks that do not originate from spawning areas located in the Chignik Area.

APPENDIX G

*Statistical weeks and corresponding
calendar dates for 1991*

Appendix G.1. Statistical weeks and corresponding calendar dates for 1991.

| Statistical Week | Calendar Dates | Statistical Week | Calendar Dates |
|---------------------|------------------|---------------------|------------------|
| 1 | 01-Jan to 05-Jan | 28 | 07-Jul to 13-Jul |
| 2 | 06-Jan to 12-Jan | 29 | 14-Jul to 20-Jul |
| 3 | 13-Jan to 19-Jan | 30 | 21-Jul to 27-Jul |
| 4 | 20-Jan to 26-Jan | 31 | 28-Jul to 03-Aug |
| 5 | 27-Jan to 02-Feb | 32 | 04-Aug to 10-Aug |
| 6 | 03-Feb to 09-Feb | 33 | 11-Aug to 17-Aug |
| 7 | 10-Feb to 16-Feb | 34 | 18-Aug to 25-Aug |
| 8 | 17-Feb to 23-Feb | 35 | 25-Aug to 30-Sep |
| 9 | 24-Feb to 02-Mar | 36 | 01-Sep to 07-Sep |
| 10 | 03-Mar to 09-Mar | 37 | 08-Sep to 14-Sep |
| 11 | 10-Mar to 16-Mar | 38 | 15-Sep to 21-Sep |
| 12 | 17-Mar to 23-Mar | 39 | 22-Sep to 28-Sep |
| 13 | 24-Mar to 30-Mar | 40 | 29-Sep to 05-Oct |
| 14 | 31-Apr to 06-Apr | 41 | 06-Oct to 12-Oct |
| 15 | 07-Apr to 13-Apr | 42 | 13-Oct to 19-Oct |
| 16 | 14-Apr to 20-Apr | 43 | 20-Oct to 27-Oct |
| 17 | 21-Apr to 27-Apr | 44 | 27-Oct to 02-Nov |
| 18 | 28-Apr to 04-May | 45 | 03-Nov to 09-Nov |
| 19 | 05-May to 11-May | 46 | 10-Nov to 16-Nov |
| 20 | 12-May to 18-May | 47 | 17-Nov to 23-Nov |
| 21 | 19-May to 25-May | 48 | 24-Nov to 30-Nov |
| 22 | 26-May to 01-Jun | 49 | 01-Dec to 07-Dec |
| 23 | 02-Jun to 08-Jun | 50 | 08-Dec to 14-Dec |
| 24 | 09-Jun to 15-Jun | 51 | 15-Dec to 21-Dec |
| 25 | 16-Jun to 22-Jun | 52 | 22-Dec to 28-Dec |
| 26 | 23-Jun to 29-Jun | 53 | 29-Dec to 31-Dec |
| 27 | 30-Jun to 06-Jul | | |

APPENDIX H

*Chignik Management Area preliminary 1991 season
summary and 1992 season forecast*

FORECAST AREA: Chignik Management Area

PRELIMINARY 1991 SEASON SUMMARY

Sockeye salmon

Escapement: 952,013¹ + 88,085² = 1,040,098

Chignik Catch: 1,899,293

Igvak Catch (Chignik origin): 341,869³

Stepovak Catch (Chignik origin): 268,990³

Total Run: 3,550,250

1 Weir counts

2 Estimated escapement after weir was removed

3 Catches for entire season

Forecast Area: Chignik Management Area
Species: Sockeye

PRELIMINARY FORECAST OF THE 1992 RUN

| | Point <u>Estimate</u> | 80% Prediction Forecast <u>Range</u> |
|--------------------------------|--------------------------|--|
| <u>Early Run</u> (Black Lake) | | |
| Total Run: | 1,800,000 | 1,150,000-2,500,000 |
| Escapement: | 400,000 | |
| Catch: | 1,400,000 | |
| <u>Late Run</u> (Chignik Lake) | | |
| Total run | 900,000 | 700,000-1,100,000 |
| Escapement: | 250,000 | |
| Catch: | 650,000 | |
| <u>Total Chignik Run</u> | | |
| Total Run | 2,700,000 | 1,850,000-3,600,000 |
| Escapement: | 650,000 | |
| Catch: | 2,050,000 | |

FORECAST METHODS:

The estimated run to Black Lake is a summation of a regression for major year classes and a 10-year average for minor year classes while the Chignik Lake run is based on recruit per spawner relationship. The Black Lake forecast is based on the historical relationship between the prior year number age 1.2 fish, the average length of prior year age 1.2 male fish, and the parent year escapement. These variables are used in a framework for the multiple linear regression model to predict the 1992 run forecast for 1.3 and 2.3 age classes. All other age classes are predicted from a ten year average. The Chignik Lake forecast has historically been quite variable in its accuracy and developing a model such as the one used for the first run has been unsuccessful. The forecast for 1992 was derived using an average return per spawner for each age class represented in the return.

DISCUSSION OF THE 1992 FORECAST:

Early Run

The estimated return of Black Lake sockeye salmon in 1992 is 1.80 million fish. This is approximately .22 million fish more than the 1981-90 average run of 1.62 million fish. The 1987 parent year escapement was 589,291 fish, 189,291 fish above the 400,000 fish escapement goal. The estimated return of 144,174 age 1.2 fish in 1991 was 30,066 less the 10 year average of 174,240.

Late Run

The estimated return of second run sockeye salmon in 1992 is .90 million fish, .33 million less than the 1981-90 average of 1.22 million fish. The second run forecast has historically been quite variable when compared to actual returns. The 1986 parent year escapement of 207,231 fish was 42,769 below the 250,000 desired escapement goal. The average return per spawner for each contributing age class was used to forecast the return and it is anticipated that the actual return will fall within the prediction bounds.

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Chignik Management Area
1992 Harvest Projections
(in thousands)

| <u>Chinook</u> ¹ | <u>Sockeye</u> ² | <u>Coho</u> ³ | <u>Pink</u> ⁴ | <u>Chum</u> ⁵ | <u>Total</u> |
|-----------------------------|-----------------------------|--------------------------|--------------------------|--------------------------|--------------|
| 5 | 2,050 | 200 | 2,000 | 235 | 4,490 |

1 Chinook harvest is dependent upon the amount of fishing time allowed for sockeye salmon in July; the harvest projection approximates a 10-year average.

2 Estimate includes projected harvest in the Cape Igvak and Balboa/Stepovak intercept fisheries.

3 Coho salmon harvest is related to the strength of the Chignik Lake sockeye run. Lagoon harvest is determined by parent escapement and return per spawner while outside catches are based on a 10-year harvest average.

4 The pink salmon forecast is driven by the escapements to the Central and Eastern Districts (69 percent). Unstable stream conditions in these districts have resulted in poor returns from excellent parent year escapements.

5 The chum forecast is based on a 10-year average of escapements and returns.

APPENDIX I

Chignik Management Area herring sac-roe fishery Management Plan, 1991

1991

CHIGNIK MANAGEMENT AREA
HERRING SAC-ROE FISHERY
MANAGEMENT PLAN

By:

Dave Owen
and
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Regional Information Report¹ No. 4K91-7

Alaska Department of Fish and Game
Division of Commercial Fisheries
211 Mission Road
Kodiak, Alaska 99615

April 1991

¹The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

INTRODUCTION

Description of Area

The Chignik Management Area lies on the south side of the Alaska Peninsula between the Kodiak Management Area to the east and the Alaska Peninsula Management Area to the west. Kilokak Rocks is the eastern boundary and Kupreanof Point is the western boundary. The area is subdivided into the Eastern, Central, Chignik Bay, Western and Perryville Districts (Figure 1).

History of the Herring Fishery

At the inception of the Alaska Peninsula herring fishery, Chignik area catches were grouped with catches from north and south peninsula areas and labeled as Southwestern Alaska catches. The earliest recorded commercial herring fishery occurred in 1906. Annual Southwestern Alaska herring catches for the early 1900's did not exceed 500 tons. A small herring saltery was operated at Lake Bay in the Chignik Bay District during the early 1930's. Herring were harvested with beach seines and salted for future resale. No further breakdown of catch by area is available. The herring fisheries ceased in the late 1930's and did not commence again until 1980, when the sac-roe fishery was initiated.

The herring sac-roe fishery in the Chignik Area began in 1980. Although the current sac-roe fishery may not be fully developed,

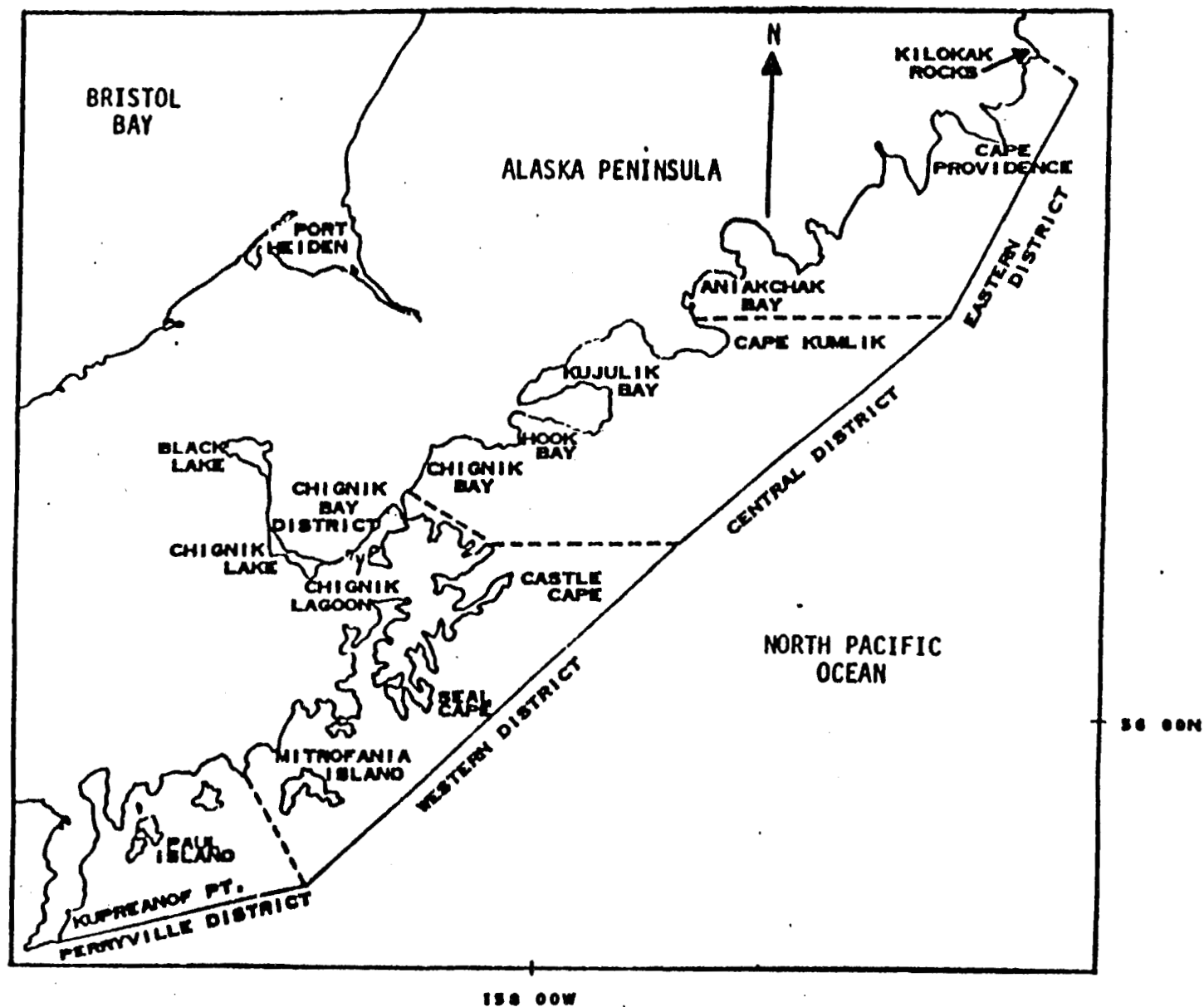


Figure 1. Map of the Chignik Management Area with the statistical fishing districts and some prominent locations identified.

exploration and effort levels suggest that it will continue to be a relatively low participation, low yield fishery.

Management Strategy

Sac-Roe Fishery

Several known geographic areas support the majority of Chignik's spawning biomass and the herring in each of these areas are managed as discrete stocks.

The annual harvest for each identified stock is dependent upon previous year biomass estimates and an exploitation rate of 0-20% of the available spawning biomass. The annual level of exploitation is dependent on evaluation of individual stock status, recruitment, and age composition. By regulation, the herring sac-ro-e season extends from 15 April through 30 June. In-season management stipulates alternating 24 hour fishing periods, and 24 hour closures. Each fishing period will begin at 1200 hours (12:00 noon) on odd numbered days throughout the regulatory season and close at 1200 hours (12:00 noon) on even numbered days or when the harvest level for an individual stock is achieved. Pre-season harvest projections may differ from actual harvest levels if in-season information suggests the spawning biomass of discrete stocks differ significantly from anticipated levels.

The fishery is monitored through contact with fishermen and aerial observations of the herring biomass, as well as daily contact with local processors.

An important element in the management of the Chignik herring fishery comes from the information collected by fishermen and commercial spotters. This cooperation is definitely encouraged and all exchange of information will be confidential.

1991
CHIGNIK AREA
HERRING MANAGEMENT PLAN

I. Registration Requirements:

a. Tenders and Processors: Each tender operator and buyer must register in person and obtain their registration packet containing statistical charts, etc. in Kodiak or Chignik prior to fishing (see regulation 5 AAC 27.540).

b. Fishing Vessels: There is no area registration requirements for fishing vessels in 1991.

II. Regulations in Effect:

Refer to the 1991 Commercial Herring Regulation Booklet. 5 AAC 27.590. BUYER AND TENDER REPORTING REQUIREMENTS. In addition to the requirements of 5 AAC 39.130(f) each tender operator and each buyer or his agents shall report in person to and register with a local representative of the department upon arrival in the statistical area before commencing operations and before changing location of the operation. Each buyer shall:

(1) identify all vessels to be employed in transporting or processing herring and shall register such vessels with a local representative of the department located in the statistical area before transporting or processing herring;

III. Guideline Harvest Level:

The Statewide policy of harvest on a 0-20% exploitation rate of the available spawning biomass will be followed.

Harvest levels will be determined in season on a bay by bay (stock by stock) basis. The commercial herring harvest from the Chignik Area has been declining since 1980. The harvest range for the past nine seasons has been 11 - 694 tons with an average of 184 tons.

Even though the commercial herring sac-roë herring fishery was opened in 1990 there were no reported harvests from this area. Although no formal forecasts for Chignik herring are formulated it is anticipated, based on past years interest and effort that the harvest in 1991 will be between 50 and 80 tons.

The actual 1991 harvest will depend upon the biological condition of the stock, the amount of effort actively exploring throughout the area, and by the availability of local processing. However, it is not expected that the 1991 harvest will reach the nine year average harvest of 184 tons.

IV. Fishing Season:

- a. Herring may be taken from 15 April through 30 June.
- b. Herring may be taken only during periods established by emergency order.

V. Fishing Periods:

Initially, fishing periods will be 24 hours long beginning at 1200 hours (12:00 noon) on all odd numbered days and ending at 1200 hours (12:00 noon) on all even numbered days. The schedule will begin at 1200 hours (12:00 noon) 15 April. Any changes in this fishing schedule will be announced by emergency order.

VI. Airplanes:

There is no restriction on the use of airplanes in the sac-roë herring fishery.

VII. Legal Herring Gear:

- a. 5 AAC 27.565. (a) Herring may be taken only by purse seines.

b. 5 AAC 27.575. **SEINE SPECIFICATIONS AND OPERATIONS.**

No purse seine may be more than 1,000 meshes in depth or more than 100 fathoms in length.

VIII. **Tender and Processors Reporting Requirements:**

- a. All processors and tender operators will be required to report daily catch information to ADF&G. This can be accomplished either by radio (SSB) or telephone. The Chignik ADF&G office will stand by on **4125** SSB and VHF CH6 frequencies, between 0800 hours - 1000 hours (8:00 -10:00 A.M.) and 2000 hours to 2200 hours (8:00 P.M. - 10:00 P.M.). The call sign for Chignik is **KGB 76 "Chignik Weir"**, telephone number 845-2243. If unable to contact ADF&G Chignik, your catch information should be given to ADF&G Kodiak or Sand Point via telephone or 4125 SSB. The call signs for Kodiak and Sand Point are WHM20 and WIM77 respectively. Failure to report is a violation of commercial fishing regulations (5 AAC 27.590 (2)); vigorous enforcement of this regulation should be expected as a result of past harvest reporting deficiencies.
- b. Because of the relatively small guideline harvest levels for some bays and districts, the fishing season will be promptly closed by emergency order whenever it appears that accurate catch information cannot quickly be obtained from the processors and tenders by radio or telephone. Prompt reporting will increase the likelihood of reopening certain areas if the summarized catches indicate that the desired guideline harvest levels have not been reached in a certain bay or district and if there are sufficient numbers of herring present in the bay to warrant a reopening.

For Confidential Purposes:

Individual code sheets will be given to each tender/
processor for the purpose of reporting catch (tons) and
statistical area where herring were caught.

IX. 1991 Management Strategy:

The 1991 Chignik herring management plan will incorporate some of the data collected during the 1980-1990 seasons. Harvest levels are established only in those bays where historical biomass estimates and fishing effort dictate.

The Big River Section has not received any appreciable recruitment of herring into that fishery since 1980.

The trend in this stock's age composition has regressed from a healthy 1980 biomass dominated by 4 and 5 year old fish to a diminished biomass in 1986 dominated by 8 and 9 year old fish. No significant recruitment has occurred in recent years. Consequently the Big River Section (272-70 Amber Bay and 272-60 Aniakchak Bay) will remain closed in 1991.

Lake Bay 271-10 in the Chignik Bay District and Castle Bay 273-94 in the Castle Cape Section of the Western District will be very closely monitored in 1991.

Table 1. Guideline harvest levels (in tons) for the Chignik Management Area, 1992^a.

| Stat. Area | Guideline Management Unit | Harvest Levels | <u>Required Spawning Biomass</u> | |
|---------------|------------------------------|-------------------|----------------------------------|-------|
| | | | @20% | @10% |
| 272-20 | Amber Bay ^a | 0 | 0 | 0 |
| 272-60 | Aniakchak Bay | 0 | 0 | 0 |
| 271-10 | Anchorage Bay | 100 | 500 | 1,000 |
| 273-94 | Castle Bay | 10 | 50 | 100 |
| 271-10 | Chignik Lagoon | 10 | 50 | 100 |
| 272-30 | Hook Bay | 10 | 50 | 100 |
| 275-50 | Humpback Bay | 20 | 100 | 200 |
| 275-40 | Ivanof Bay | 10 | 50 | 100 |
| 272-50 | Kujulik Bay | 10 | 50 | 100 |
| 271-10 | Lake Bay | 10 | 50 | 100 |
| 272-92 | Port Wrangall | 0 | 0 | 0 |
| 272-96 | Agripina Bay | 20 | 100 | 200 |
| TOTAL | | 200 | 1,000 | 2,000 |

^aThe specific statistical areas listed above are those that have a historical sac-roe harvest. The remainder of the Chignik Management Area is open for exploration and will be regulated within the statewide herring harvest policy of 0% to 20% of the available spawning biomass.

^bThe Big River Section (272-70 Amber Bay and 272-60 Aniakchak Bay) will remain closed in 1992.

APPENDIX J

1991 Herring Regulations

Appendix J.1. 1991 Herring Regulations

CHIGNIK AREA

ARTICLE 9. - STATISTICAL AREA L

CHIGNIK AREA.

5 AAC 27.550. DESCRIPTION OF AREA. Statistical area L includes all waters on the south side of the Alaska Peninsula enclosed by 156°20'13" W. long. (the longitude of the southern entrance to Imuya Bay near Kilokak Rocks) and a line extending southeast (135°) from the southernmost tip of Kupreanof Point.

5 AAC 27.555. DESCRIPTION OF DISTRICTS. Districts are as described in 5 AAC 15.200.

5 AAC 27.560. FISHING SEASONS AND WEEKLY FISHING PERIODS. (a) Herring may be taken from April 15 through June 30 (sac roe season) and from August 15 through February 28 (food and bait season).

(b) Herring may be taken only during periods established by emergency order.

5 AAC 27.565. GEAR. (a) Herring may be taken only by purse seines.

(b) A herring fishing vessel may operate or assist in operating only one legal limit of herring fishing gear in the aggregate.

(c) Unhung gear sufficient for mending purposes may be carried aboard fishing vessels.

(d) Herring fishing nets shall be measured, either wet or dry, by determining the maximum length of cork line when the net is fully extended with traction applied at one end only.

(e) The interim-use or entry permit holder is responsible for operation of the net.

(f) The use of leads with any net gear used for commercial herring fishing is prohibited during the herring sac roe season.

5 AAC 27.575. SEINE SPECIFICATIONS AND OPERATIONS. No purse seine may be more than 1,000 meshes in depth or more than 100 fathoms in length.

5 AAC 27.580. WATERS CLOSED TO HERRING FISHING. During the period June 12 through October 31, herring may not be taken in waters described in 5 AAC 15.350 and 5 AAC 39.290.

5 AAC 27.590. BUYER AND TENDER REPORTING REQUIREMENTS. In addition to the requirements of 5 AAC 39.130(f) each tender operator and each buyer or his agents shall report in person to and register with a local representative of the department upon arrival in the statistical area before commencing operations and before changing location of the operation. Each buyer shall:

(1) identify all vessels to be employed in transporting or processing herring and shall register such vessels with a local representative of the department located in the statistical area before transporting or processing herring;

(2) make daily reports of all herring purchased from fishermen, and other processing records as specified by a local representative of the department, and

(3) submit fish tickets before departure from the area and no later than 10 days after termination of buying operations in the area, or as otherwise specified by a local representative of the department.

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